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**Auditor Switching for Opinion Shopping,
and Subsequent Audit Quality and Audit Fee:
Evidence from the Post-SOX Period***

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**Auditor Switching for Opinion Shopping,
and Subsequent Audit Quality and Audit Fee:
Evidence from the Post-SOX Period***

ABSTRACT: Theory suggests that firms engage in opinion shopping to obtain better audit opinions. However, there is scarce evidence on the economic consequences of the opinion shopping behaviors. In this paper, we examine the effect of auditor switches for opinion shopping on audit quality and audit fees. Using 30,333 firm-year observations over the 2004-2012 period in the U.S., we first document evidence that firms switch their auditors in search for better audit opinions. Next, we find that the audit quality of clients that switch auditors for opinion shopping is significantly lower than that of clients that did not switch auditors or switched auditors for other purposes. Further tests reveal that these clients pay significantly higher audit fees to their successive auditors. Consequently, we provide compelling evidence that opinion shopping is detrimental to audit quality and auditor independence.

Key Words: opinion shopping, audit fees, audit quality.

I. INTRODUCTION

While auditor switches occur for various reasons such as a change in the demand for audit service, auditor-client mismatch, and an effort to reduce audit fee, some switches are suspected to be motivated by clients' opinion shopping (i.e., shopping for an improved audit opinion from a successor auditor). Opinion shopping behavior has long received considerable attention from regulators worldwide since the behavior has serious implications for the credibility of audit opinions and auditor independence. For example, regulators in Canada (MacDonald Commission 1987), U.K. (Cadbury Commission 1992; Institute of Chartered Accountants in England and Wales 2002) and European Union (European Commission 2010) express their respective concerns over opinion shopping. Recently European Commission (2010) and PCAOB (2011) discuss a possible introduction of mandatory auditor rotation to prevent opinion shopping and improve auditor independence. Despite regulators' continuing concerns, anecdotal evidence indicates that there still exist actual auditor switches that appear to be related to opinion shopping.¹ Therefore, several primitive questions will provide insights into the debate over public policy: Do audit clients successfully engage in opinion shopping in today's audit environment? Does auditor switching for opinion shopping impair auditor independence and deteriorate subsequent audit quality? Do opinion shopping clients pay higher fees to successor auditors to provide economic incentives for a clean opinion? This study intends to address these crucial questions.

Empirical results of prior research on the efficacy of opinion shopping are mixed and dated. While earlier studies compare pre- and post-switch audit opinions and find no association between switching to a new auditor and a subsequent improvement in the audit

¹ An example is Overstock.com which switched auditors from Grant Thornton to KPMG shortly after they replaced PWC with Grant Thornton in 2009. The case ignited controversy on the motivation of Overstock.com for changing their auditors frequently and raised intense concerns from the investment community over the possibility of opinion shopping. See 'The auditor disagrees with overstock.com' (New York Times, December 29, 2009) for details.

opinion (Chow and Rice 1982; Krishnan 1994; Krishnan and Stephens 1995; Geiger et al. 1998), Lennox (2000) argues that this evidence does not necessarily mean that opinion shopping is futile because an opinion shopping client is expected to compare the probability of receiving an unfavorable opinion from the incumbent auditor with the probability of receiving a more favorable opinion from the successor auditor. Thus, he tests for opinion shopping with UK data by predicting opinions that clients would have received if they had made switch decisions opposite to those that actually occur, and finds that clients would have received less favorable opinions had they made switch decisions opposite to those actually observed, consistent with successful opinion shopping.

In this study, we first examine whether audit clients successfully engage in opinion shopping in recent audit environment, using the Lennox's (2000) innovative methodology to identify opinion shopping.² As discussed above, prior evidence on the efficacy of opinion shopping is dated, while audit environment dramatically changed after the passage of Sarbanes-Oxley Act (SOX) of 2002. In particular, if independent audit committees, which are now responsible for hiring auditors, make auditor switch decisions without opinion shopping consideration, the results documented by Lennox (2000) may not be observed in the post-SOX period. On the other hand, managerial incentives to avoid unfavorable audit opinions may still indirectly affect auditor switch decisions if client firms appoint audit committee members that readily support hiring auditors preferred by managers. Therefore, whether clients successfully engage in opinion shopping in the post-SOX period is an open question.

Second, we next examine how auditor switches motivated by opinion shopping are related to post-switch audit quality.³ Auditor switching for opinion shopping may occur

² Although earlier studies on opinion shopping examine all non-clean opinions, we focus on going concern opinions because a vast majority of non-clean opinions are going concern audit opinions.

³ An inherent difficulty in this investigation is to separate auditor switches motivated by opinion shopping from other auditor switches. Auditor switching for opinion shopping is proxied by an indicator variable which is 1 if a

under two possibilities. Clients may switch auditors for opinion shopping when incumbent auditors are likely to issue a non-clean opinion due to their stricter threshold for a clean opinion, while the clients believe that the true economic circumstance of their firms does not necessarily warrant the issuance of a non-clean opinion. We call this possibility as ‘*switching for a different view*.’ Other clients may switch auditors to hire a less independent auditor who is more likely yield to client pressure to issue a clean opinion. These clients switch auditors because their incumbent auditors’ resistance to the client pressure is relatively higher. We call this alternative possibility as ‘*switching for impaired independence*.’⁴

It is not clear whether the finding of Lennox (2000) is driven by the first type of auditor switches or the second type. Although both types of auditor switches may result in an improved audit opinion from successor auditors, their implications for subsequent audit quality are different. Under the first case (i.e., switching for a different view), a client’s desire to change auditors is not to exercise undue influence on audit quality; instead the client simply utilizes a possible disagreement between incumbent and successor auditor as to the type of opinion which the two auditors believe to be appropriate. In such a case, the implication of the auditor switches to subsequent audit quality is not straightforward. On the other hand, auditor switches in the second case (i.e., switching for impaired independence) are opportunistically motivated by clients who want to have a lower quality audit. If the clients successfully appoint an auditor who is more susceptible to the client pressure, it is reasonable to expect the lack of independence to be reflected in both egregious audit failure such as restatements and less egregious audit quality proxies such as the magnitude of

client firm switches its auditor in anticipation of a lower probability of receiving a non-clean opinion from the successor auditor, and 0 otherwise, based on Lennox’s (2000) methodology. Please see Section III for details.

⁴ While “opinion shopping” is often understood as the practice of changing auditors in order to get a desired audit opinion, regulators define it more broadly by referring it to “the search for an auditor willing to support a proposed accounting treatment designed to help a company achieve its reporting objectives even though that treatment might frustrate reliable reporting” (Securities and Exchange Commission, SEC, 1988). This definition by SEC is more consistent with ‘switching for impaired independence.’

discretionary accruals.

Third, we also examine the relation between auditor switches for opinion shopping and subsequent audit fees. If the second type clients mostly induce auditor switching for opinion shopping, the clients may pay higher audit fees to successor auditors because the auditors will have few incentives to compromise independence if no fee premium is paid. On the contrary, if the first type is the dominant driver of auditor switching for opinion shopping, we may not observe a different level of audit fees, because the successor auditors are unlikely to demand such fee premium under this case. We explore these implications by identifying a group of auditor switches for opinion shopping with the Lennox's methodology (i.e., auditor switches in anticipation of a higher probability of receiving a clean opinion from successor auditors) and then examining their subsequent audit quality and audit fees.

Using 30,333 firm-year observations collected over the 2004 – 2010 period in the U.S., we empirically examine these issues. Among the total sample, 2,524 clients (firm-year observations) change auditors, while the remaining 27,809 clients do not. The empirical findings are summarized as follows. First, following Lennox's (2000) method, we find evidence that U.S. firms do engage in opinion shopping even in the post-SOX period. Second, we find that clients that switch auditors for opinion shopping exhibit significantly lower audit quality, measured by the magnitude of discretionary accruals and the frequency of restatements, in the subsequent year than clients that did not switch auditors or switched auditors for other purposes. It implies that auditor switching decision is motivated by the client's desire to appoint a less independent auditor who is more likely to yield to client pressure to issue a clean opinion. Third, the deterioration in audit quality is accompanied with higher audit fees, lending support to the view that auditor switching for opinion shopping results in impaired independence. The results are robust in a battery of sensitivity checks, including propensity score matching for the control for potential existence of endogeneity.

This study contributes in the following ways. First, this study contributes to the literature on opinion shopping and audit quality. While the empirical evidence of opinion shopping is dated, we document the evidence of successful opinion shopping and its consequences in *recent* audit environment by applying Lennox's (2000) innovative method which has been rarely used in subsequent studies. More importantly, since the prior studies solely focus on the audit opinion as the outcome of shopping efforts, there is no evidence on how opinion shopping behavior is related to the successor auditors' audit quality and audit fee pricing. We fill this gap by documenting that auditor switching for opinion shopping causes not only an improved audit opinion but also poor audit quality in the subsequent year, despite higher audit fees paid to the successor auditor. This finding contrasts with the result of Lu (2006) who analytically shows that the successor auditor's independence is not compromised by opinion shopping and that the successor auditor's audit quality *exceeds* the predecessor auditor's audit quality.

Second, this study contributes to various interested parties. For regulators, the finding of this study is consistent with their concern that auditor switching for opinion shopping may impair auditor independence. Therefore, this study highlights the need to develop mechanisms that aid in curbing the clients' tendency to engage in opinion shopping, such as a policy of mandatory auditor rotation or retention to certain clients, or other mechanisms that discipline excessive client pressure. The finding also provides important implications for investors and audit committee members by showing that the reliability of financial reporting quality can be hampered by auditor switching for opinion shopping. Finally, our results suggest that the practicing auditors should take extra precautions in accepting clients that are likely to engage in opinion shopping because the resulting deteriorated audit quality could lead to greater litigation risk in the future.

The next section discusses related literature and hypothesis development. The third section explains sample selection and research design. The fourth section discusses the descriptive statistics, main empirical results, and the results of sensitivity tests and other analyses. The final section concludes.

II. LITERATURE AND HYPOTHESIS DEVELOPMENT

Going concern Audit opinion and Opinion Shopping

According to Statement on Auditing Standards (SAS) 59, auditors have a responsibility to evaluate whether there is substantial doubt regarding an entity's ability to continue as a going concern for a reasonable period of time, not to exceed one year from the date of the financial statements, as part of every audit engagement. SAS 59 identifies various negative trends or conditions that may be indicative of a going concern problem. If auditors possess substantial doubt based on knowledge obtained from audit procedures, they need to consider management's plans to improve the company's financial situation. If substantial doubt remains about their client's ability to continue as a going concern after considering management's plans, then auditors are required to issue a going concern report.

Since a going concern audit opinion (GCO hereafter) can induce various adverse consequences such as negative market reaction, rating downgrade, and difficulty in raising new capital, audit clients may have incentives to avoid a GCO. Unfavorable audit opinions might be avoided through strategic auditor switching which is known as opinion shopping. Prior studies show that clients tend to switch auditors after receiving non-clean audit opinions (Carcello and Neal 2003; Chow and Rice 1982; Geiger et al. 1998).⁵ Studies also find that there exist some actual auditor switches that appear to be related to opinion shopping

⁵ In addition, the threat of auditor switch itself, without accompanying actual switch, may influence audit opinions of incumbent auditors who fear dismissal by clients and the resulting loss of economic rent (Dye 1991).

(Archambeault and DeZoort 2001; Smith 1986).⁶ However, prior studies indicate that clients that switched auditors after receiving a non-clean opinion do not receive improved opinions from successor auditors in the year following auditor switch (Chow and Rice 1982; Krishnan 1994; Krishnan and Stephens 1995). This finding can be interpreted as either auditor switching being unrelated to opinion shopping or the attempts of opinion shopping being unsuccessful due to the inand independence of external auditors. Consistent with the latter interpretation, Lu (2006) theoretically demonstrates that neither the threat to switch auditor nor opinion shopping impairs both the predecessor auditor's and successor auditor's independence.

In contrast to the abovementioned studies, Lennox (2000) argues that pre-switch opinions are poor proxies for the unobserved opinions that clients would have received had they made opposite switch decisions. Instead of comparing pre- and post-switch opinions, he develops an audit reporting model to predict the unobserved audit opinions using UK firms over 1988-1994 and tests their effect on clients' auditor switching decisions. He finds that clients would have received unfavorable opinions more often had they made opposite switch decision, suggesting that clients tend to switch (not to switch) auditors when they expect more favorable audit opinions from new auditors (incumbent) auditors. Using US firms over 1996-1998 and the same methodology, Lennox (2002) finds similar results. Therefore, unlike the previous studies, Lennox (2000; 2002) suggests that clients successfully engage in opinion shopping.

Opinion Shopping Behavior in Recent Audit Environment

As discussed above, empirical results of prior research on the opinion shopping

⁶ Archambeault and DeZoort (2001) select clients with multiple auditor switches in recent periods or clients with some reportable events in 8-K report as suspicious switches for opinion shopping purposes. Smith (1986) classifies that only five cases out of 139 auditor switches occurred after the clients receive non-clean opinions are suspected to be an outcome of opinion shopping. However, both studies do not actually examine whether the switches are related to audit quality or fee changes.

behavior are mixed and dated. It is unclear whether firms engage in the opinion shopping behavior in today's U.S. audit environment after the passage of SOX. This act took numerous steps to improve audit quality and auditors' independence. For example, Ghosh and Pawlewicz (2009) report that both the average accounting-related legal settlements and average damage claimed by plaintiffs in securities action lawsuits increased dramatically in the post-SOX era. Newly created PCAOB also increased both oversight and penalties for audit-related violations. Furthermore, the scope of audit service is expanded dramatically, including the audit for internal control (Ghosh and Pawlewicz 2009),

In addition, the relationship between management and external auditors is for the most part replaced by the audit committee. The audit committee is now directly responsible for the appointment, compensation, retention and oversight of independent auditors, who now need to report directly to the audit committee. Moreover, the act also requires all members of audit committee to be independent (Section 301) and at least one member to be a "financial expert" (Section 407).

From the view of clients, to the extent that greater audit committee independence and expertise as well as the separation between management and auditors (especially for issues over auditor switching) reduce managerial willingness to engage in opportunistic auditor switching, the opinion shopping behavior documented in Lennox (2000) may not hold true in the post-SOX period. Separately, from the view of auditors, as long as SOX reforms protect auditors (at least partially) from the threat of being dismissed after the issuance of going concern reports and stringed legal liability faced by auditors in the post-SOX era reduce auditors' incentives to collude with clients, it is possible that opinion shopping tendency documented in Lennox (2002) disappear or at least weakens in the post-SOX period. Therefore, we reexamine the following hypothesis in alternative form:

H1: Clients that predict auditor switching to improve audit opinion are more likely to switch

their auditors.

Auditor Switching for Opinion Shopping and Subsequent Audit Quality

As discussed in the earlier section, auditor switching for opinion shopping can occur under the following two cases. First, in determining audit opinions, auditors may have different views with regard to the same situation. For example, when auditors assess a going concern problem and management's plan to improve financial situations, they might have different views about the circumstances in which GCO should be issued. If clients that anticipate receiving a GCO believe that their incumbent auditors have a conservative view while their firms' true economic situation does not necessarily warrant the receipt of a GCO, the clients may switch auditors in hopes of finding a more reasonable successor. We conveniently call this possible case '*switching for a different view.*'⁷

Alternatively, the clients may switch auditors because auditors may react differently in response to client pressure. For example, when the incumbent auditor is not susceptible to the client pressure, the client may have an incentive to switch auditors in hopes of finding a more pliable auditor. In this case, auditor switching is motivated by the client's desire for appointing a less independent auditor who is more likely to yield to client pressure to issue a clean opinion. We call this case '*switching for impaired independence.*' While a client's sole purpose in the first category is to obtain a more favorable opinion utilizing auditors' different views, the purpose of this second category can be broader, which includes obtaining desirable treatments for other accounting matters in financial reports. Consistent with this notion, SEC defines opinion shopping as "search for an auditor willing to support a proposed accounting treatment designed to help a company achieve its reporting objectives even though that

⁷ Consistent with this view, Krishnan (1994) reports that clients that switch auditors receive more conservative treatment in the audit opinion decision than clients that do not. He further suggests that while relatively more conservative treatment will cause switchers to receive qualified opinions more often, it is the differential treatment rather than the issuance of the qualified opinion that triggers the switch.

treatment might frustrate reliable reporting” (SEC 1988).

Both cases above can be considered opinion shopping, because if the clients successfully appoint preferred successor auditors, both will induce a lower likelihood of receiving a GCO in the year following auditor changes. However, the implications for audit quality are different across the two views. Independence is an essential element of high-quality audit. Auditors with impaired independence are likely to not only issue more favorable audit opinions to their clients but also restrict less the clients’ opportunistic accounting method choices. Thus, while it is reasonable to expect the lack of independence to be reflected in low-quality audits in the subsequent year under the second view, the first category of opinion shopping may be more benign; because the clients simply utilize the difference in genuine views between incumbent and successor auditors, the auditor switches under this view provide little implication of a low-quality audit. Given that it is unclear which force is a dominant driver of auditor switching for opinion shopping, we test the following hypotheses in alternative form to gain insights into clients’ motives underlying opinion shopping behavior:

H2a: Clients that switched auditors for opinion shopping opportunities will exhibit lower audit quality in the subsequent year than clients that did not switch auditors or switched auditors for other purposes.

H2b: Clients that switched auditors for opinion shopping opportunities will experience a decrease in audit quality in the subsequent year.

Auditor Switching for Opinion Shopping and Subsequent Audit Fees

The relation between auditor switching for opinion shopping and subsequent audit fees may also differ under the two views of opinion shopping. First, clients may be willing to pay higher fees to a successor auditor under the *searching for impaired independence* view, because while audit fees that are higher than normal level create client-specific quasi-rents, the existence of the quasi-rents provides an incentive for auditors to compromise

independence (Choi et al. 2010; DeAngelo 1981; Dye 1991).⁸ If no fee premium is provided, the successor auditor will have few incentives to compromise independence by acquiescing to client pressure for a clean opinion. The successor auditor may also request higher fees to compensate for the heightened risk associated with the client.

However, the incentives for the client to offer higher fees will be fewer under the *searching for a different view*, because the successor is unlikely to expect a ‘bribery attempt’ from the client. If successor auditors issue a clean opinion under this view, this is because of their more favorable perception about clients’ going concern status, not because of the existence of quasi-rents from the clients. In sum, given that the implications of the two views on the subsequent audit fees are different, we test the following hypotheses in alternative form:

H3a: Clients that switched auditors for opinion shopping will pay higher audit fees in the subsequent year than clients that did not switch auditors or switched auditors for other purposes.

H3b: Clients that switched auditors for opinion shopping will experience an increase in audit fees in the subsequent year.

III. VARIABLE MEASUREMENT AND MODEL SPECIFICATION

Sample Selection

Our initial sample consists of all firms included in the Audit Analytics database for the period from 2004 to 2012 (fiscal year) for which data on audit fees, opinions, and auditor identity information are available. We select 2004 as the first year to control for the effect of Arthur Andersen’s collapse in 2001 and numerous auditor switches occurred in subsequent years of 2002 and 2003. Since the Andersen collapse affected auditors’ market shares

⁸ For example, Kinney and Libby (2002) explain that Enron’s actual audit fee in year 2000 was 250 percent of normal audit fee. They suggest that the abnormally high fee demonstrates economic bond between the auditor and the client, which impairs auditor independence.

dramatically, this change may unduly influence our analyses.⁹

Next, we retrieve all other financial data from Compustat and merge them with the data extracted from Audit Analytics. The merging procedure results in a loss of some observations. In addition, we exclude firms that belong to the financial (SIC codes 60–69) and utilities (SIC codes 40–49) industries. The final sample size comprises of 30,333 (29,929) firm–year observations that are used for level (change) test on audit fees.¹⁰ Due to data restriction in computing discretionary accruals and other control variables, the sample size on discretionary accruals is further reduced to 29,346 observations for level test and 28,604 observations for change test.

Measurement of Auditor Switches driven by Opinion Shopping

To measure our main test variable (‘opinion shopping purpose auditor change’), we use Lennox’s (2000) methodology. Our test consists of two stages: First, we identify whether the opportunity of opinion shopping exists at the individual firm level. Second, we examine whether the client who has the opportunity to engage in opinion shopping takes advantage of it by switching its auditor to avoid receiving an unfavorable audit opinion.

Lennox (2000) tests the scope of opinion shopping based on the predicted reporting differences between a firm’s incumbent auditor and its newly hired auditor. Following his methodology, we calculate the possibility for a firm to receive a going-concern opinion for both the cases of switching and non-switching decision, using the following probit model of audit opinion:

⁹ None of the auditor changes identified in this study are due to Arthur Andersen’s demise (i.e., the auditor change from Arthur Andersen to other auditors. However, the auditors’ capacity constraint caused by the inflow of the former clients of Arthur Andersen to new auditor may lead to some auditor changes in the subsequent period indirectly (e.g., Landsman et al. 2009). However, because the auditor change due to temporal capacity constraint is not related to auditor change initiated by clients for opinion shopping, our results are not likely to be affected by the possible confounding factors. We choose 2004 as the start of the sample period not to include such auditor changes.

¹⁰ The minimum (maximum) sample size per year is 2,853 (3,901) in 2012 (2004). The small variation in the sample size reveals that the observations are evenly distributed across our sample period.

$$\begin{aligned}
GCO_{jt} = & \alpha + \beta_1 ACH_{jt} + \beta_2 GCO_LAG1_{jt-1} + \beta_3 TA_{jt} + \beta_4 LEV_{jt} + \beta_5 ROA_{jt} + \beta_6 BANK_{jt} \\
& + \beta_7 GROWTH_{jt} + \beta_8 BTM_{jt} + \beta_9 BIG4_{jt} + \beta_{10} LTENURE_{jt} + \beta_{11} GCO_LAG1_{jt-1} *ACH_{jt} \\
& + \beta_{12} TA_{jt} *ACH_{jt} + \beta_{13} LEV_{jt} *ACH_{jt} + \beta_{14} ROA_{jt-1} *ACH_{jt} + \beta_{15} BANK_{jt} *ACH_{jt} \\
& + \beta_{16} GROWTH_{jt} *ACH_{jt} + \beta_{17} BTM_{jt} *ACH_{jt} + \beta_{18} BIG4_{jt} *ACH_{jt} \\
& + \beta_{19} LTENURE_{jt} *ACH_{jt} + Industry\ dummy + Year\ dummy + \varepsilon
\end{aligned} \tag{1}$$

where, for firm j and year t (or $t - 1$), GCO and ACH are audit opinion and auditor change indicator variables, respectively. An audit report indicator variable (GCO_{jt}) equals one if firm j receives a going-concern opinion in year t , and zero otherwise. An auditor switch indicator variable (ACH_{jt}) equals one if firm j switches its auditor in year t , and zero otherwise. To capture the strong persistence of audit opinions as documented by prior studies, we include prior audit opinion (GCO_LAG1_{jt-1}) in Eq. (1) (Krishnan et al. 1996; Lennox 2000). We also include the natural logarithm of total assets (TA), leverage (LEV), return on assets (ROA), bankruptcy indicator variable ($BANK$), growth in total assets ($GROWTH$), book-to-market ratio (BTM), Big 4 indicator variable ($BIG4$), and natural logarithm of auditor tenure plus one ($LTENURE$), following prior literature.¹¹ We also include the interaction terms between auditor switch indicator variable (ACH) and all the other explanatory variables to capture the reporting difference between the incumbent and newly hired auditors. Refer to Appendix A for the detailed definitions of variables.

Using the above audit opinion model in Eq. (1), we calculate our two tests variables on opinion shopping purpose auditor switch: OP and P_OP . The variable OP represents the difference in the predicted audit opinion under the auditor switching decision and non-switching decision, respectively (i.e., $\widehat{GCO}^1_{jt} - \widehat{GCO}^0_{jt}$ where the superscript 1 denotes the

¹¹ Adopting Lennox (2000)'s approach, we include profitability, leverage, and a bankruptcy indicator as variables for representing financial health. We also control for firm size since small companies receive modified opinions more often than large companies (Krishnan 1994). In addition, we control for audit firm type (DeAngelo 1981), audit firm tenure (Knechel and Vanstraelen 2007), growth, and book-to-market ratio (Lennox 2002). For detailed definitions of variables, refer to Table 1.

auditor switch decision and 0 the non-switch decision). Further, using the results from Eq. (1), we compute the conditional probability that firm j receives a going-opinion at time t , denoted as $\Pr(GCO_{jt}^n)$ where the superscript n denotes the auditor switch decision. A firm will receive a going-concern opinion with $\Pr(GCO_{jt}^l)$ if it changes its auditor and with $\Pr(GCO_{jt}^o)$ if it retains its auditor. The difference in the conditional probability of receiving a going-concern opinion between the new and incumbent auditors (i.e., $[\Pr(GCO_{jt}^l = 1) - \Pr(GCO_{jt}^o = 1)]$) is P_OP .¹² Negative values of this variable imply the existence of scope for clients to switch between auditors to avoid unfavorable opinions because the probability of receiving a going-concern opinion is lower under switching decision.

Measurement of Discretionary Accruals

We use the absolute value of discretionary accruals ($|PDA|$) as a proxy for financial reporting quality. We use the performance-matched modified Jones model (Kothari et al. 2005) to calculate discretionary accruals. We first estimate the cross-sectional version of the modified Jones model using the following model:

$$ACCR_{jt} / A_{jt-1} = \alpha_1 [1 / A_{jt-1}] + \alpha_2 [(\Delta REV_{jt} - \Delta REC_{jt}) / A_{jt-1}] + \alpha_3 [PPE_{jt} / A_{jt-1}] + \varepsilon_{jt} \quad (2)$$

where, for firm j and year t (or $t - 1$), $ACCR$ denotes total accruals (income before extraordinary items minus cash flow from operations); A , ΔREV , ΔREC , and PPE represent total assets, changes in net sales, changes in receivables, and gross property, plant, and equipment, respectively; and ε indicates the error term. We estimate Eq. (2) for each two-digit Standard Industrial Classification (SIC) industry and year with at least 10 observations.

Next, following the procedures proposed by Kothari et al. (2005), we match each firm–year observation with another one from the same two-digit SIC industry with the closest return on assets each year. We then compute performance-matched discretionary accruals,

¹² Refer to Lennox (2000) for further details on the estimation of OP and P_OP .

PDA, by taking the difference between the unadjusted discretionary accruals (*DA*) and the return on the asset-matched firm's *DA*. We truncate a few outliers that have an absolute value of *PDA* greater than two. In the subsequent empirical analyses, we use the absolute values of *PDA* (i.e., $|PDA|$) to measure the level of financial reporting quality. We use the absolute value, rather than the signed value, because high-quality auditors should restrict both income-increasing and income-decreasing accruals at the same time.

Models for Opinion Shopping Tests

To test *H1*, we examine whether a client switches its auditor for opinion shopping purposes. We include our opinion shopping variable, *P_OP* (*OP*) derived from Eq. (1), in the regression below to estimate the auditor switch model:

$$ACH_{jt} = \beta_0 + \beta_1 P_OP_{jt} \text{ (or } OP_{jt}) + \beta_2 TA_{jt} + \beta_3 LEV_{jt} + \beta_4 ROA_{jt} + \beta_5 BANK_{jt} + \beta_6 GROWTH_{jt} + \beta_7 BTM_{jt} + \beta_8 BIG4_{jt} + Industry\ dummy + Year\ dummy + \varepsilon \quad (3)$$

where all variables are as defined previously. A significant negative coefficient on *P_OP* (*OP*) indicates that firms would have received modified opinions more frequently if they had made opposite switch decisions, consistent with *H1*. If a firm has a negative value of the opinion shopping variable, which means that the probability of receiving a going-concern opinion is lower under switching decision, and the firm actually switches its auditors, we view that the firm switches its auditor for the purpose of opinion shopping. Refer to Appendix A for the detailed definitions of variables.

Using the results of this model, we define an indicator variable of the auditor switch for the opinion shopping purpose (*OS_ACH*), which will be used as our main test variable in our next set of tests. The variable has a value of 1 if a client switches its auditor in anticipation of lower probability of receiving a going-concern opinion, and 0 otherwise.

Models for Audit Quality Tests

To test *H2a*, we investigate the effect of auditor switch driven by opinion shopping on

audit quality, which is proxied by the magnitude of discretionary accruals. We use the following multivariate regression model as in prior studies (Ashbaugh et al. 2003; Becker et al. 1998; Choi et al. 2010, 2013):

$$\begin{aligned}
 |PDA_{jt}| = & \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 TA_{jt} + \beta_4 LEV_{jt} + \beta_5 LOSS_{jt} + \beta_6 ISSUE_{jt} + \beta_7 CFO_{jt} \\
 & + \beta_8 BTM_{jt} + \beta_9 TACLAG_{jt} + \beta_{10} SCHANGE_{jt} + \beta_{11} BIG4_{jt} + Industry\ dummy \\
 & + Year\ dummy + \varepsilon
 \end{aligned} \tag{4}$$

where *LOSS* is a loss indicator variable; *CFO* is the operating cash flows deflated by lagged total assets; *TACLAG* is lagged total accruals deflated by lagged total assets; *SCHANGE* is the percentage of sales changes. All other variables are as previously defined. Variables representing firm size (*TA*), profitability, and solvency (*LOSS*, and *CFO*) are included based on prior studies (Ashbaugh et al. 2003; Choi et al. 2010). Lagged total accruals (*TACLAG*) are included to control for the reversal of accruals (Ashbaugh et al. 2003). Both *ISSUE* and *SCHANGE* represent the firm's growth potential (Choi et al. 2010). Big 4 auditor indicator variable (*BIG4*) is included to control for auditor characteristics (Becker et al. 1998). Refer to Appendix A for the detailed definitions of variables. Finally, we include year and industry indicator variables to control for yearly and industry differences. A positive (negative) coefficient on *OS_ACH* in Eq. (4) implies that the audit quality of the newly appointed auditor as a result of opinion shopping is poorer (better) than that of auditor with no intention of opinion shopping.

To test *H2b*, we employ the change analyses to investigate the effect of auditor switch for opinion shopping purposes on audit quality. We need to infer the changes of audit quality indirectly from cross-sectional level regression explained above (i.e., Eq. (4)) In contrast, examining changes in audit quality after switching auditors to obtain better opinion reveals whether the audit quality of the newly appointed auditor improves or deteriorates directly. Furthermore, change specification mitigates concern for the omitted correlated

variable problems (Ghosh and Lustgarten 2006). In so doing, we employ the following regression model:

$$\begin{aligned}
\Delta|PDA_{jt}| = & \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 \Delta TA_{jt} + \beta_4 \Delta LEV_{jt} + \beta_5 LOSS_TO_NOLOSS_{jt} \\
& + \beta_6 NOLOSS_TO_LOSS_{jt} + \beta_7 NOISSUE_TO_ISSUE_{jt} + \beta_8 ISSUE_TO_NOISSUE_{jt} \\
& + \beta_9 \Delta CFO_{jt} + \beta_{10} \Delta BTM_{jt} + \beta_{11} \Delta TACLAG_{jt} + \beta_{12} \Delta SCHARGE_{jt} + \beta_{13} BIG4 \\
& + Industry\ dummy + Year\ dummy + \varepsilon
\end{aligned} \tag{5}$$

where Δ represents the value of a change from prior year to current year; *NOLOSS_TO_LOSS* (*LOSS_TO_NOLOSS*) is an indicator variable that equals one if a firm reports a loss for the current (prior) year but not for the prior (current) year, and zero otherwise; *NOISSUE_TO_ISSUE* (*ISSUE_TO_NOISSUE*) is an indicator variable that equals one if the sum of debt or equity issued during the past three years is more than five percent of the total assets for the current (prior) year but not for the prior (current) year, and zero otherwise; all other variables are as previously defined. A positive (negative) coefficient on *OS_ACH* in Eq. (5) indicates that auditor switches driven by opinion shopping is associated with the likelihood of deterioration (improvement) in audit quality compared to prior year.

Models for Audit Fee Tests

To examine the effect of auditor switch driven by opinion shopping on audit fees (*H3a*), we use the following multivariate regression model, adopting approach used by prior studies (Ghosh and Lustgarten 2006; Choi et al. 2008; Ghosh and Pawlewicz 2009; Simunic and Stein 1996).

$$\begin{aligned}
AUDFEE_{jt} = & \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 TA_{jt} + \beta_4 INVREC_{jt} + \beta_5 FOREIGN_{jt} + \beta_6 SEG_{jt} \\
& + \beta_7 CATA_{jt} + \beta_8 CACL_{jt} + \beta_9 LEV_{jt} + \beta_{10} ROA_{jt} + \beta_{11} LOSS_{jt} + \beta_{12} GCO_{jt} \\
& + \beta_{13} BTM_{jt} + \beta_{14} ISSUE_{jt} + \beta_{15} BIG4_{jt} + Industry\ dummy \\
& + Year\ dummy + \varepsilon
\end{aligned} \tag{6}$$

where *INVREC* is the sum of inventories and receivables divided by total assets; *FOREIGN* is an indicator variable that equals one if a firm operates foreign business, and zero otherwise; *SEG* is the natural log of the number of business segments plus geographical segments; *CATA* is the ratio of year-end current assets to total assets; *CATL* is the ratio of year-end current assets to current liabilities; *BTM* is the book value of equity divided by market value of equity; *ISSUE* is an indicator variable that equals one if the sum of debt or equity issued during the past three years is more than five percent of the total assets, and zero otherwise. All other variables are as previously defined. Refer to Appendix A for the detailed definitions of variables.

In the above model, the coefficient on *ACH* captures the incremental audit fees paid by clients that change auditors for other purposes compared with ongoing auditors after controlling for factors that are known to affect audit fees.¹³ In addition, the coefficient on *OS_ACH* captures the effect of opinion shopping purpose auditor switch on the incremental change in audit fees over the clients that change auditors for other reasons than opinion shopping. *H3a* can be translated as $\alpha_2 > 0$.

To test *H3b*, we employ a changes specification rather than a levels specification (Ghosh and Lustgarten 2006; Ghosh and Pawlewicz 2009), to investigate the effect of opinion shopping behavior on audit fees. Specifically, we regress the following change model:

$$\begin{aligned} \Delta AUDFEE_{jt} = & \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 \Delta TA_{jt} + \beta_4 \Delta INVREC_{jt} + \beta_5 FRN_TO_NOFRN_{jt} \\ & + \beta_6 NOFRN_TO_FRN_{jt} + \beta_7 \Delta SEG_{jt} + \beta_8 \Delta CATA_{jt} + \beta_9 \Delta CACL_{jt} + \beta_{10} \Delta LEV_{jt} \\ & + \beta_{11} \Delta ROA_{jt} + \beta_{12} NOLOSS_TO_LOSS_{jt} + \beta_{13} LOSS_TO_NOLOSS_{jt} \end{aligned}$$

¹³ We use the term ‘ongoing auditors’ to refer to auditors that audited the same client in year *t* and *t-1* continuously. In addition, we do not specifically predict the sign for *ACH*. Although early studies document the existence of low-balling (Ettredge and Greenberg 1990; Ghosh and Lustgarten 2006; Simon and Francis 1988) which suggests a negative coefficient on *ACH*, a recent study of Ghosh and Pawlewicz (2009) document the existence of fee premiums in the post-SOX period for new clients. Given that our study use post-SOX data, we expect that it is more likely that the coefficient on *ACH* is positive, supporting the finding of Ghosh and Pawlewicz (2009).

$$\begin{aligned}
& + \beta_{14} \text{CLEAN_TO_GCO}_{jt} + \beta_{15} \text{GCO_TO_CLEAN}_{jt} + \beta_{16} \Delta \text{BTM}_{jt} \\
& + \beta_{17} \text{NOISSUE_TO_ISSUE}_{jt} + \beta_{18} \text{ISSUE_TO_NOISSUE}_{jt} \\
& + \beta_{19} \text{BIG4}_{jt} + \text{Industry dummy} + \text{Year dummy} + \varepsilon
\end{aligned}$$

(7)

where FRN_TO_NOFRN (NOFRN_TO_FRN) is an indicator variable that equals one if a firm operates foreign business for the prior (current) year but not for the current (prior) year, and zero otherwise; CLEAN_TO_GCO (GCO_TO_CLEAN) is an indicator variable that equals one if the firm receives a going concern opinion for the current (prior) year but not for the prior (current) year, and zero otherwise. All other variables are as previously defined.

In the empirical analyses, a positive coefficient on OS_ACH in Eq. (7) is consistent with audit fee increases for clients switching auditors for opinion shopping purposes.

IV. EMPIRICAL RESULTS

Tests of *H1*: Evidence of Opinion Shopping

Table 1 presents the number of observations used in the analysis depending on the audit opinion and auditor switch decisions, descriptive statistics for variables used in audit reporting and auditor switching models, and the results of the ordinary least squares (OLS) regression for Eq. (1) and (3). First, Panel A provides the number of observations for switching and non-switching firms. We place firms into one of 4 bins (2 x 2) based on the intersection of receiving or not receiving a going concern opinion in year t and $t-1$ for switching and non-switching firms. For non-switching firms ($N = 27,809$), it shows that the number of firms that received a (non-) clean opinion in both years t and $t-1$ is 24,022 (2,225). Thus, about 95 (84) percent of firms that received a clean (going-concern) opinion in year $t-1$ continue to receive a clean (going-concern) opinion in the following year. Alternatively, for switching firms ($N = 2,524$), it shows that the number of firms that received a (non-) clean

opinion in both years t and $t-1$ is 1,753 (455). Thus, about 89 (82) percent of firms that receive a clean (going-concern) opinion in year $t-1$ continue to receive a clean (going-concern) opinion in the following year from a different auditor. It confirms the persistence of audit opinion over years as documented by prior literature (Geiger et al. 1998; Krishnan and Stephen 1995; Lennox 2000).

Second, Panel B shows that GCO and ACH are positively correlated (0.12), which indicates that clients that received going concern opinion have a tendency to change their auditors. It is notable that the relation between GCO and GCO_LAG1 is persistent over years (0.71). Additionally, we find that clients that received going concern opinions (GCO) are negatively correlated with firm size (TA), measure of profitability (ROA), book-to-market ratio (BTM), and Big 4 indicator variable ($BIG4$), while GCO is positively correlated with leverage (LEV), bankruptcy measure ($BANK$), and growth variable ($GROWTH$), consistent with prior literature (Francis and Yu 2009; Lennox 2000, 2002).

[Insert Table 1 here]

Finally, Panel C provides the results of Eq. (1) and (3), investigating whether client firms successfully engage in opinion shopping.¹⁴ Columns (1) and (2) of Table 1 are results of audit opinion model (i.e., Eq. (1)) without the interaction variables and with the interaction variables, respectively. While Column (1) forces the coefficients on explanatory variables to be the same for switching and non-switching firms, Column (2) takes into consideration the differences between the two types of firms by introducing the interaction terms between ACH and the explanatory variables. The insignificant coefficients on ACH in both columns confirm the finding in prior studies that audit opinion does not improve after auditor change (Krishnan 1994; Krishnan and Stephen 1995). The positive and significant coefficient on GCO_LAG1

¹⁴ Table 5 is similar to Table 4 of Lennox (2000). Note that we use clustered standard errors by each firm to calculate the t-values for all regression analyses reported in this study.

indicates strong persistence in audit opinions over years. Further, the results show that firms have a higher likelihood of receiving a going-concern opinion if they have small firm size (*TA*), high leverage (*LEV*), low profitability (*ROA*), subsequently fail (*BANK*), lower book-to-market ratio (*BTM*), and shorter length of auditor tenure (*LTENURE*).

In Columns (3) to (5), we report the results of auditor switch model (i.e., Eq. (3)). First, in Column (3), we report our benchmark model without *P_OP* or *OP*. The results in Column (2) enable us to construct the opinion-shopping variables, *P_OP* and *OP*, which are included in Columns (4) and (5). In Column (4), the variable, *P_OP*, captures the effect of opinion shopping intention on auditor switching by using the difference in the probability of receiving a going-concern opinion between new and incumbent auditors (i.e., $[\Pr(GCO^l_{jt}=1) - \Pr(GCO^o_{jt}=1)]$). The highly significant negative coefficient on *P_OP* (t-statistic = -17.79) in Column (4) indicates that firms are more likely to change auditors when the probability of receiving a going-concern opinion under switching decision ($\Pr(GCO^l_{jt}=1)$) is lower than that under non-switching decision ($\Pr(GCO^o_{jt}=1)$). Next, we compute *OP*, which is the difference in the predicted response variable between new and incumbent auditors (i.e., $\widehat{GCO}^l_{jt} - \widehat{GCO}^o_{jt}$). Column (5) shows that the coefficient on *OP* is also negative and significant (t-statistic = -27.94), indicating that firms tend to switch auditors when going-concern opinions are less predicted under switching decision (\widehat{GCO}^l_{jt}) than under non-switching decision (\widehat{GCO}^o_{jt}), which are consistent with the findings in Lennox (2000, 2002). These results support *H1*, suggesting the persistence of opinion shopping behavior in the post-SOX era.

Based on the estimated results, we construct *OS_ACH*. As explained previously, this variable has a value of 1 if a firm switches its auditor in anticipation of having lower probability of receiving a going-concern opinion, and 0 otherwise. The variable will be used

in the subsequent analyses to test *H2a & H2b* and *H3a & H3b*.

Table 2 presents the number of observations for clients that switched their auditors depending on the classified purposes of auditor switch (i.e., opinion shopping purpose or not). It shows that out of the 2,524 auditor switch cases, 1,004 cases (40%) pertain to those that switched auditors for opinion shopping purposes ($OS_ACH = 1$). The remaining 1,520 cases are classified as auditor switches for other purposes ($OS_ACH = 0$). Further, we find the proportion of clients that received going concern audit opinions in year $t-1$ but received clean audit opinions in year t ($GCO_{t-1} = 1$ & $GCO_t = 0$) is much higher in for clients switching for opinion shopping ($83/1,004 = 8.27\%$), relative to clients switching for other purposes ($16/1,520 = 1.05\%$)

[Insert Table 2 here]

Tests of *H2a* and *H2b*: The Effect of Opinion Shopping on Audit Quality

Table 3, Panel A, presents the descriptive statistics of the variables employed in our audit quality sample. The mean value of the absolute value of discretionary accruals ($|DA|$) is 0.15. The indicator variable, ACH , has a mean value of 0.08, which indicates that 8% of the sample firms have changed their auditors. Our variable of interest, OS_ACH , reports a mean of 0.03, which shows that 3% of the sample firms have changed their auditors for opinion shopping. The mean firm size (TA) is 12.06, which is equivalent to US\$1,715 million. The average value of the ratio of debt to total assets (LEV) is 0.32, and the proportion of firms that report a loss ($LOSS$) is 42% of the sample. Also, 61% of our sample firms hire Big 4 auditors ($BIG4$). We omit the further discussion on the descriptive statistics since they are self-evident.

[Insert Table 3 here]

Panel B of Table 3 presents the regression results for testing *H2a* which investigates the effect of auditor change for opinion shopping on audit quality proxied by the magnitude

of discretionary accruals ($|DA|$).¹⁵ We report the results using Eq. (4).¹⁶ Columns (1) and (2) use the full sample comprising of new and ongoing auditors ($N = 29,346$). In Column (1), when we do not include the variable OS_ACH , the coefficient on ACH is positive (0.0171) and significant (t-statistic = 2.73), suggesting that the audit quality of new auditors is lower than that of ongoing auditors. In Column (2), the coefficient on OS_ACH is 0.0486 and significant at the 1% level (t-statistic = 3.52), indicating that the audit quality of the newly appointed auditor as a result of opinion shopping is significantly lower than that of newly appointed auditors who were appointed for other reasons. The coefficient on ACH is positive and insignificant, implying that the audit quality does not significantly differ between new auditors who were appointed for reasons other than opinion shopping and ongoing auditors.

To examine the economic significance of our results, we translate the estimated coefficients of ACH and OS_ACH into the magnitude of absolute discretionary accruals as a percentage of lagged total assets, and calculate the percentage difference between newly appointed auditors as a result of opinion shopping and newly appointed auditors with no such intent using the estimated coefficients reported Column (2) of Table 3, Panel B. The estimated coefficient on ACH , -0.0011, and that on OS_ACH , 0.0486, indicate that, on average, the new clients of auditors chosen based on opinion shopping exhibit an approximately 122 percent higher level of absolute discretionary accruals than those of new auditors with no intent of opinion shopping when we set all other variables at their respective mean values.¹⁷ This finding suggests that the economic impact of opinion shopping on

¹⁵ For tests based on audit quality, we exclude observations if the absolute value of discretionary accruals is greater than or equal to 2 (Kothari et al. 2005) and winsorize the top and bottom 1% of all of the independent variables. The results remain qualitatively similar if we winsorize the top and bottom 1% of all of the continuous variables.

¹⁶ The results are qualitatively similar when we use discretionary accruals that are unadjusted for performance as the proxy for audit quality.

¹⁷ The average magnitude of absolute discretionary accruals as a percentage of lagged total assets estimated from the coefficients reported in Column (2) is 0.0886 for the new clients of auditors appointed for opinion shopping purposes and 0.0400 for the new clients of auditors appointed for other purposes when we set all the

discretionary accruals is tremendous.

Column (3) and (4) report the results for income-increasing ($|DA+|$) and income-decreasing ($|DA-|$) discretionary accruals sample, respectively. The coefficient on OS_ACH is positive and significant in both cases, indicating that clients switching auditors for opinion shopping purposes implement both aggressive accounting and excessively conservative or “big bath” accounting.

We also repeat the analysis after excluding ongoing clients. We perform this test because there may exist inherent differences, which are not properly captured by the inclusion of control variables in the regression model, between auditor switching firms and non-switching firms. Within the auditor switching sample ($N = 2,324$), we find similar results in Column (5) in which the coefficient on OS_ACH is positive and significant at the 1% level (coeff. = 0.0542; t-statistic = 3.28), implying that the audit quality of clients switching auditors for opinion shopping is lower than that of clients switching auditors for other reasons. We omit discussions on control variables because they are self-explanatory. However, we would like to point out that all the significant coefficients have the expected signs consistent with prior studies (Francis and Yu 2009; Choi et al. 2010), suggesting that our regression models are less likely to be influenced by unknown correlated omitted variables. The explanatory powers (adjusted R^2) reported at the bottom row of Panel B are also reasonably high.

Panel C of Table 3 shows results of estimating audit quality change regressions (Eq. (5)) for both full and auditor switching samples to test $H2b$. Column (1) report the results using full sample ($N = 28,604$) but without OS_ACH in Eq. (5). The coefficient on ACH is 0.0161 and significant (t-statistic = 2.19) at the 5% level. It implies that the magnitude of the increase in discretionary accruals from year $t-1$ to t is higher for clients switching auditors

other variables to their respective mean values.

compared to clients that do not switch auditors, confirming the finding in prior studies (e.g., DeFond and Subramanyam 1998). Column (2) reveals that the coefficient on *OS_ACH* is positive and significant at the 10% level (coeff. = 0.0298; t-statistic = 1.87). This result indicates that the extent of deterioration of audit quality from *t-1* to *t* is significantly larger for audits conducted by new auditors appointed as a result of opinion shopping than that of audits performed by new auditors appointed for other purposes, consistent with *H2b*. Note that the coefficient on *ACH* (0.0052) is insignificant in Column (2).¹⁸ It implies that the significant coefficient on *ACH* in Column (1) is entirely driven by auditor switches for opinion shopping.

Next, we exclude firms audited by ongoing auditors, repeat the same analysis, and report the results in Column (3) (N = 2,206). The coefficient on *OS_ACH* is also positive and significant at the 5% level (coeff. = 0.0391; t-statistic = 2.10), indicating that the magnitude of deterioration of audit quality from *t-1* to *t* is much higher for clients switching auditors for opinion shopping than that of clients switching auditors with no such intention.

To ensure that our results are not sensitive to alternative measures of audit quality, we repeat our tests using restatements (*Restate* or *Restate_AD*) as an alternative measure of audit quality. We tabulate the results in Panel D of Table 3. Results using these alternative measures of audit quality yield evidence that clients exhibit lower levels of audit quality when they switch their auditor for opinion shopping purposes.

Columns (1) and (2) in Panel D of Table 3 report the results using full sample (N = 27,075). The positive coefficient on *OS_ACH* in Column (1) indicates that clients switching auditors for opinion shopping have a tendency to restate the financial statements in the subsequent year. In Column (2), the positive coefficient on *OS_ACH* indicates that those

¹⁸ In economic terms, the documented coefficients translate into the average magnitude of the absolute discretionary accruals increasing by 1.9% after the auditor switch driven by opinion shopping while the average magnitude of the absolute discretionary accruals decrease by 1.6% for ongoing auditors when we set all the other variables at their respective mean values.

restatements are income-decreasing cases, suggesting that firms use aggressive accounting method choices to report inflated earnings in the year of auditor change for opinion shopping. These findings clearly suggest that audit quality is poorer for the clients that switch auditors for opinion shopping. In contrast, we find that the coefficient on *ACH* is negative and significant in both Columns (1) and (2), suggesting that clients that switch auditors for other purpose is less likely to restate earnings later. We repeat these tests using restatement and income-decreasing restatement as a proxy for audit quality for our auditor switching subsample in Columns (3) and (4), respectively. The results are qualitatively identical to those in Columns (1) and (2).

Summarizing our findings from Table 3, we conclude that firms switching auditors for opinion shopping exhibit lower audit quality and experience a decrease in audit quality in the subsequent year compared to clients that did not switch auditors or switched auditors for other purposes, findings consistent with *H2a* and *H2b*. These results are robust to limiting the sample to firms that change their auditors.

Tests of *H3a* and *H3b*: The Effect of Opinion Shopping on Audit Fees

Table 4 presents the descriptive statistics for our audit fee sample, the results of OLS regression for Eq. (6) and (7). First, Panel A of Table 4 shows that the descriptive statistics for the samples ($N = 30,333$). The mean audit fees (*AUDFEE*) is 6.25, or approximately US\$1.373 million. Generally, the descriptive statistics of our audit fee sample is similar to those reported in prior literature. We omit the further discussion on the descriptive statistics since they are self-evident.

[Insert Table 4 here]

Next, Panel B of Table 4 presents the regression results for *H3a* which examines whether audit fees increase after clients switch auditors for opinion shopping purposes, using

level analyses.¹⁹ Columns (1) and (2) report results using full sample which comprises of both switching and non-switching client firms. The base regression results, presented in Column (1), show that the coefficient on *ACH* is positive and insignificant, a finding consistent with Ghosh and Pawlewicz (2009) in which the extent of lowballing declined following SOX. Column (2) includes *OS_ACH*, the ‘auditor switch for opinion shopping purpose’ variable, and presents results of Eq. (7). The coefficient on *OS_ACH* is 0.0559 and significant at the 5% level (t-statistic = 2.11), indicating that clients switching auditors for opinion shopping pay higher audit fees relative to clients switching auditors for other purposes. Based on the coefficient estimate in Column (2), auditors appointed for opinion shopping earn an average of 6% higher fees than other new auditors who are appointed for other purposes.²⁰ This result is consistent with a positive relation between auditor switch driven by opinion shopping and audit fees, as proposed by *H3b*. Note that the coefficient on *ACH* is insignificant consistently in Column (2).

We repeat the above analyses using auditor switching sample (N = 2,524) and present the results in Column (3). It shows that the coefficient on *OS_ACH* is 0.1230 and significant at the 1% level (t-statistic = 3.56), indicating that clients switching auditors with an expectation to receive more favorable opinions pay significantly higher audit fees (approximately 13%) than firms that change auditors with no intention of opinion shopping. This result provides further support for *H2a* that auditor switches driven by opinion shopping lead to increased audit fees. Although we omit detailed discussions on control variables, all the significant coefficients have the expected signs. The explanatory powers (adjusted R²) reported at the bottom row of Panel A show that they are at least 82%, suggesting that our

¹⁹ For tests based on audit fee, we winsorize the top and bottom 1% of all of the continuous variables to alleviate the effect of outliers.

²⁰ The effect is computed by using the coefficient estimate on variable *OS_ACH* in Column (2) of Table 4, Panel B, (0.0559), as follows. The effect = $100 * [\exp(0.0682) - 1] \approx 5.75$.

empirical models explain the audit fees reasonably well.

Similar to Ghosh and Lustgarten (2006), we employ a changes specification to investigate whether auditor changes driven by opinion shopping lead to audit fee increases from year $t-1$ to year t . We report the regression results of changes in audit fees using Eq. (7) in Panel C of Table 4. In Column (1), when we use full model ($N = 29,929$), we find that the coefficient on ACH , without OS_ACH variable in the regression model, is insignificant. Column (2) presents results of the full model of Eq. (8). The coefficient on OS_ACH continues to be positive and significant at the 5% level (coeff. = 0.0988; t-statistic = 2.14). Our results suggest that after controlling for changes in firm-level characteristics, audit fees for clients changing auditors for opinion shopping increase an additional 10% relative to audit fees for clients switching auditors for other reasons. The result is consistent with $H3b$. Column (3), which focuses only on firms that switch their auditors ($N = 2,472$), shows that the coefficient on OS_ACH is positive and significant (t-statistic = 1.67) at the 10% level. It implies that the incoming auditors selected for opinion shopping purposes increase audit fees relative to what the predecessor auditors charged, and the number is about 8% higher than what the incoming auditors charge clients with no intention of opinion shopping.

Overall, the results in Table 4 are consistent with the notion that auditor change driven by opinion shopping increases audit fees, supporting $H3a$ and $H3b$.²¹

Sensitivity Tests

We repeat our analyses using various settings to examine the robustness of our findings. First, we conduct the same tests after omitting auditor switches that are deemed

²¹ In an alternative view, auditor may charge higher fees for the clients who switch auditors for opinion shopping purpose to increase the scope of audit. If auditors are aware of the risk related to such clients, they may extend the scope of audit to minimize the potential audit risk of issuing clean opinion for the clients and the increased level of efforts leads to higher audit fees. However, our empirical results on the analyses for audit quality do not support this view. If auditors extend the scope of audit, the audit quality is expected to increase (e.g., Caramanis and Lennox 2008; Kwon and Ki 2011) but our empirical results suggest the audit quality deterioration after opinion shopping purpose auditor switches.

unrelated to opinion shopping. For this purpose, we remove auditor switches due to auditor resignations ($N = 734$) because auditor resignation could be driven by auditor-client misalignment or a change in a client's litigation risk (Johnson and Lys 1990; Landsman et al. 2009; Shu 2000). We report the results in Panel A of Table 5.²² To conserve space, we only report the coefficients for *ACH* and *OS_ACH*. The regression results of the audit quality model using Eq. (4), the coefficient on *OS_ACH* is positive and significant at the 1% level when using full sample (coeff. = 0.0975; t-statistic = 2.96) in Column (1) and when using auditor switching sample (coeff. = 0.2259; t-statistic = 4.25) in Column (2). These results indicate that clients that switched auditors for opinion shopping opportunities exhibit lower audit quality than clients that did not switch auditors or switched auditors for other purposes. The audit fee regression results in Column (3) and (4) are consistent with clients appointing auditors for opinion shopping paying significantly higher audit fees. Although not tabulated separately, the results of change regressions are qualitatively identical. Second, we follow prior literature by restricting our sample to financially distressed firms as defined in DeFond et al. (2002) and Francis and Yu (2009). We rerun our audit quality and audit fee tests and report the results in Table 5, Panel B. We continue to find that the coefficient on *OS_ACH* is positive and significant under both criteria of financially distressed firms (reporting a loss and belonging in the lowest 25% of equity). Although not tabulated separately, the results of change regressions are qualitatively identical.

Third, we conduct additional test by employing non-switching firms. After receiving GCO from incumbent auditors in a year, some firms decide not to switch their respective auditors because they believe that they are more likely to receive clean opinions in next year from the incumbent auditor than from new auditor. We check if audit quality and fees differ

²² Throughout Table 5, we report the results of Eq. (4) only for the simplicity when we analyze audit quality. We assure that the results using other analyses are qualitatively the same.

for these firms. In empirical analyses with available sample, we find that audit quality is higher and audit fees are lower for these firms than other firms that do not receive GCO in a prior year. The finding clearly reveals the deteriorated audit quality and increased audit fees after auditor switches for opinion shopping.

Fourth, we repeat empirical analyses after replacing audit fees in Eqs. (6) and (7) for total fees (= sum of audit and non-audit fees) because opinion shopping clients may pay higher non-audit fees, rather than audit fees, in return for the clean opinion to their new auditor. The empirical results are qualitatively identical to those tabulated previously.

[Insert Table 5 here]

Controls for Endogeneity using Propensity Score Matching

Additionally, to provide comfort that our results are not driven by endogeneity, we use the propensity score matching approach to minimize the observable differences among clients (Lawrence et al. 2011). We first estimate the probit regression to model the probability of switching an auditor, using several of the audit-firm characteristics used in our auditor switching model. We then match each new client with opinion shopping purposes, one-to-one, with other new clients that switch auditors for other reasons than opinion shopping and ongoing clients with the closest propensity score without replacement within a maximum caliper distance of 5 percent.²³ As a result, for both the audit quality and audit fee analyses, we successfully match 876 and 1,001 cases of auditor change driven by opinion shopping out of 1,004 observations with the equal number of the other auditor change and ongoing auditor

²³ Specifically, we estimate the probability of switching auditors for opinion shopping purposes by regressing OS_ACH , the auditor switch for opinion shopping purpose variable, on a set of firm characteristics to influence audit fees and audit quality in the following probit models, respectively:

$$OS_ACH_{jt} = \beta_0 + \beta_3 TA_{jt} + \beta_4 INVREC_{jt} + \beta_5 FOREIGN_{jt} + \beta_6 SEG_{jt} + \beta_7 CATA_{jt} + \beta_8 CACL_{jt} + \beta_9 LEV_{jt} \\ + \beta_{10} ROA_{jt} + \beta_{11} LOSS_{jt} + \beta_{12} GCO_{jt} + \beta_{13} BTM_{jt} + \beta_{14} ISSUE_{jt} + \beta_{15} BIG4_{jt} \\ + Industry\ dummy + Year\ dummy + \varepsilon_{jt},$$

$$OS_ACH_{jt} = \beta_0 + \beta_1 TA_{jt} + \beta_2 LEV_{jt} + \beta_3 LOSS_{jt} + \beta_4 ISSUE_{jt} + \beta_5 CFO_{jt} + \beta_6 BTM_{jt} + \beta_7 TACL_{jt} \\ + \beta_8 SCH_{jt} + \beta_9 BIG4_{jt} + \beta_{10} LTENURE_{jt} + Industry\ dummy + Year\ dummy + \varepsilon_{jt},$$

where all variables are as defined previously.

cases, respectively. The results are tabulated in Panel C of Table 5.

As in Table 5, we find that the results using these matched samples are consistent with our earlier findings. Specifically, tests based on audit quality (i.e., discretionary accruals, $N = 1,752$) reveal that firms switching auditors for opinion shopping purposes experience deterioration in audit quality. In full sample, we find that the coefficient on OS_ACH is 0.0851 and significant at the 10% level (t-statistic = 1.89) and in auditor switching sample ($N = 914$), the coefficient on OS_ACH is 0.1050 (t-statistic = 2.28). Further, for audit fee tests using full sample ($N=2,002$), we find that the coefficient on OS_ACH is 0.1123 and insignificant (t-statistic = 1.23) but directionally consistent. Next, for audit fee tests using auditor switching sample ($N = 1,058$), the coefficient on OS_ACH is 0.1585 and significant at the 10% level (t-statistic = 1.67).²⁴ These results are consistent with a positive association between audit fees and auditor switches driven by opinion shopping.²⁵ Thus, we are unable to find any evidence that endogeneity influence our findings. However, we acknowledge that we never solve this issue completely.

V. CONCLUSION

In this paper, we provide compelling evidence on the economic consequences of auditor changes driven by opinion shopping. While prior studies examine the issue using a noisy measure by comparing *observed* audit opinions before and after firms change auditors, we employ Lennox's (2000) methodology which enables us to more accurately identify cases

²⁴ Although they are not separately tabulated, the results of change regression analyses are qualitatively the same as those tabulated.

²⁵ We also match all new clients with ongoing clients ($N = 4,680$ and $5,046$ in both the audit quality and audit fee tests, respectively) and find similar results. For example, for audit quality test using full sample, we find that the coefficient on OS_ACH is 0.0426 and significant at the 1% level (t-statistic = 2.90) and for audit quality tests using auditor switching sample, the coefficient on OS_ACH is 0.0533 and significant at the 1% level (t-statistic = 3.22). Additionally, for audit fee tests using full sample, we find that the coefficient on OS_ACH is 0.0816 and significant at the 1% level (t-statistic = 2.78) and for audit fee tests using auditor switching sample, the coefficient on OS_ACH is 0.1234 and significant at the 1% level (t-statistic = 3.57).

of opinion shopping by predicting the opinions both switching and non-switching firms would have received had they made opposite decisions. Using these data, we find that clients that switch auditors for opinion shopping exhibit significantly lower audit quality than those that do not engage in opinion shopping. Further, the deterioration in audit quality is accompanied with higher audit fees. We perform change analyses and subsample tests and find that the results support the detrimental consequences of opinion shopping.

This study contributes to the literature and practitioners in the following ways. First, this study contributes to the literature on opinion shopping by documenting the evidence of successful opinion shopping and its consequences in *recent* audit environment using Lennox's (2000) innovative method which has been rarely used in subsequent studies. More importantly, we fill the void in the literature by documenting that auditor switching for opinion shopping causes not only an improved audit opinion but also poor audit quality in the subsequent year, despite higher audit fees paid to the successor auditor. Second, this study contributes to various interested parties. For regulators, the finding of this study is consistent with their concern that auditor switching for opinion shopping may impair auditor independence. Therefore, this study highlights the need to develop mechanisms that aid in curbing the clients' tendency to engage in opinion shopping, such as a policy of mandatory auditor rotation or retention to certain clients, or other mechanisms that discipline excessive client pressure. The finding also provides important implications for investors by showing that the reliability of audit opinions and audit quality can be hampered by auditor switching for opinion shopping.

However, as long as the auditor switching models in Lennox (2000) base its predictions on a set of fixed firm variables, potential measurement errors could remain and influence our findings. This paper thus calls for more efforts to fine-tune these models.

References

- Archambeault, D. and F. T. DeZoort. 2001. Auditor opinion shopping and the audit committee: An analysis of suspicious auditor switches. *International Journal of Auditing* 5: 33-52.
- Ashbaugh, H., R. LaFond, and B. Mayhew. 2003. Do non-audit services compromise auditor independence? Further evidence. *The Accounting Review* 78 (3): 611–639.
- Becker, C., M. DeFond, J. Jiambalvo, and K. Subramanyam. 1998. The effect of audit quality on earnings management. *Contemporary Accounting Research* 15 (1): 1–24.
- Cadbury Committee. 1992. *Report of the Committee on the Financial Aspects of Corporate Governance*, London. Professional Publishing Ltd.
- Caramanis, C. and C. Lennox. 2008. Audit effort and earnings management. *Journal of Accounting and Economics* 45 (1): 116-138.
- Carcello, J. V. and T. L. Neal. 2003. Audit committee characteristics and auditor dismissals following “new” going-concern reports. *The Accounting Review* 78 (1): 95-117.
- Choi, J. -H., F. Kim, J. -B. Kim, and Y. Zang. 2010. Audit office size, audit quality and audit pricing. *Auditing: A Journal of Practice and Theory* 29 (1): 73–97.
- Choi, J. -H., J. -B. Kim, X. Liu, and D. A. Simunic. 2008. Audit pricing, legal liability regimes, and Big 4 premiums: Theory and cross-country evidence. *Contemporary Accounting Research* 25 (1): 55–99.
- Choi, J. -H., J. -B. Kim, and C. H. Sonu. 2013. The effect of Sarbanes-Oxley Act on auditor conservatism toward newly accepted clients. *Working Paper*. Seoul National University.
- Chow, C. and S. Rice. 1982. Qualified audit opinions and auditor switching. *The Accounting Review* 57 (2): 326-335.
- DeAngelo, L., 1981. Auditor size and audit quality. *Journal of Accounting and Economics* 3 (December): 183-199.
- DeFond, M. L., K. Raghunandan, and K. R. Subramanyam. 2002. Do non-audit service fees impair auditor independence? Evidence from going-concern audit opinion. *Journal of Accounting Research* 40 (4): 1247-1274.
- DeFond, M., and K. Subramanyam. 1998. Auditor change and discretionary accruals. *Journal of Accounting and Economics* 25 (1): 35-67.
- Dye, R. A., 1991. Informationally motivated auditor replacement. *Journal of Accounting and Economics* 14: 347-374.
- Ettredge, M. and R. Greenberg. 1990. Determinants of fee cutting on initial audit engagement. *Journal of Accounting Research* 28 (1): 198–210.

European Commission. 2010. *Audit policy: Lessons from the crisis*. Green Paper. Brussels: European Commission.

Francis, J. and M. Yu. 2009. Big 4 office size and audit quality. *The Accounting Review* 84 (5): 1521-1552.

Geiger, M., K. Raghunandan, and D. V. Rama. 1998. Costs associated with going-concern modified audit opinions: An analysis of auditor changes, subsequent opinions, and client failures. *Advances in Accounting* 16: 117-139.

Ghosh, A. and S. Lustgarten. 2006. Pricing of initial audit engagements by large and small audit firms. *Contemporary Accounting Research* 23 (2): 333-368.

Ghosh, A. and R. Pawlewicz. 2009. The impact of regulation on auditor fees: Evidence from the Sarbanes-Oxley Act. *Auditing: A Journal of Practice and Theory* 28 (2): 171-197.

Institute of Chartered Accountants in England and Wales. 2002. *Mandatory Rotation of Audit Firms*. UK.

Johnson, W. B. and T. Z. Lys. 1990. The market for audit services: Evidence from voluntary auditor changes. *Journal of Accounting and Economics* 12: 281-308.

Kinney, W. R. Jr., and R. Libby. 2002. Discussion of the relation between auditors' fees for non-audit services and earnings management. *The Accounting Review* 77 (Supplement): 107-114.

Knechel, R. and A. Vanstraelen. 2007. The relationship between auditor tenure and audit quality implied by going concern opinions. *Auditing: A Journal of Practice & Theory* 26 (1): 113-131.

Kothari, S. P., A. J. Leone, and C. E. Wasley. 2005. Performance matched abnormal accrual measures. *Journal of Accounting and Economics* 39 (1): 163-197.

Krishnan, J., 1994. Auditor switching and conservatism. *The Accounting Review* 69 (1): 200-215.

Krishnan, J. and R. Stephens. 1995. Evidence on opinion shopping from audit opinion conservatism. *Journal of Accounting and Public Policy* 14 (3): 179-201.

Krishnan, J., J. Krishnan, and R. Stephens. 1996. The simultaneous relation between auditor switching and auditor opinion: An empirical analysis. *Accounting and Business Research* 26 (3): 224-236.

Kwon, S. Y. and E. S. Ki. 2011. The effect of accruals quality on the audit hour and audit fee. *Korean Accounting Review* 36 (4): 95-137.

Landsman, W., K. Nelson, and B. Rountree. 2009. Auditor switches in the pre- and post-Enron eras; Risk or realignment? *The Accounting Review* 84 (2): 531-558.

Lawrence, A., M. Minutti-Meza, and P. Zhang. 2011. Can Big 4 versus non-Big 4 differences in audit-quality proxies be attributed to client characteristics? *The Accounting Review* 86 (1): 259-286.

Lennox, C., 2002. *Opinion Shopping and the Role of Audit Committees when Audit Firms are Dismissed: The US Experience*. The Institute of Chartered Accountants of Scotland.

Lennox, C., 2000. Do companies successfully engage in opinion-shopping? Evidence from the UK. *Journal of Accounting and Economics* 29 (3): 321-337.

Lu, T., 2006. Does opinion shopping impair auditor independence and audit quality? *Journal of Accounting Research* 44 (3): 561-583.

MacDonald Commission. 1987. *Report of the Commission to Study the Public's Expectations of Audits*. Canadian Institute of Chartered Accountants.

Public Company Accounting Oversight Board (PCAOB), 2011. Concept Release on Auditor Independence and Audit Firm Rotation. *PCAOB Release No. 2111-006*. PCAOB.

Securities and Exchange Commission (SEC). 1988. Disclosure amendments to Regulation S-K, Form 8-K, and Schedule 14A regarding changes in accountants and potential opinion shopping situations. *Financial Reporting Release No. 31*. SEC.

Simon, D. and J. Francis. 1988. The effects of auditor change on audit fees: Test of price cutting and price discovery. *The Accounting Review* 63 (2): 255-269.

Simunic, D. A., and M. T. Stein. 1996. The impact of litigation risk on audit pricing: A review of the economics and the evidence. *Auditing: A Journal of Practice and Theory* 15 (Supplement): 119–134.

Shu, S., 2000. Auditor resignations: Clientele effects and legal liability. *Journal of Accounting and Economics* 29 (2): 173-205.

Smith, D., 1986. Auditor 'subject to' opinions, disclaimers and auditor changes. *Auditing: A Journal of Practice and Theory* 6: 95–108.

Appendix A: Variable Definitions

Part A. Audit opinion and auditor change model

Variable Name	Definition
<i>GCO</i>	Indicator variable that equals one if a firm receives a going concern opinion in the current year, and zero otherwise;
<i>GCO_LAG1</i>	Indicator variable that equals one if a firm receives a going concern opinion in the prior year, and zero otherwise;
<i>ACH</i>	Indicator variable that equals one if a firm changes its auditor, and zero otherwise;
<i>P_OP</i>	Opinion shopping variable which indicates the difference between predicted going concern opinion probabilities under switching and non-switching decision;
<i>OP</i>	Opinion shopping variable which indicates the difference between predicted going concern opinion under switching and non-switching decision;
<i>TA</i>	Natural logarithm of total assets in thousands of U.S. dollars;
<i>LEV</i>	Ratio of debt to total assets;
<i>ROA</i>	Ratio of net income to total assets;
<i>BANK</i>	Indicator variable that equals one if bankruptcy file date is within 1 year from fiscal year end, and zero otherwise;
<i>GROWTH</i>	Growth in total assets;
<i>BTM</i>	Book-to-market ratio;
<i>BIG4</i>	Indicator variable that equals one if the auditor is one of the Big 4 firms, and zero otherwise;
<i>LTENURE</i>	Natural logarithm of auditor tenure plus one;

Part B. Audit quality model

Variable Name	Definition
$ DA $	Absolute value of performance-matched abnormal accruals as measured by Kothari et al.'s (2005) method;
<i>OS_ACH</i>	Indicator variable that equals one if a firm changes its auditor for the opinion shopping purpose, and zero otherwise. To estimate the opinion shopping purpose auditor change, we follow Lennox (2000) methodology. If the probability to receive a going-concern audit opinion is lower under auditor switching decision than under non-switching decision (P_OP_{jt} is negative), and the firm changes its auditor, we view that it is the auditor change for opinion shopping;
<i>LOSS</i>	Indicator variable that equals one if a firm reports a net loss, and zero otherwise;
<i>ISSUE</i>	Indicator variable that equals one if the sum of debt or equity issued during the past three years is more than five percent of the total assets, and zero otherwise;
<i>CFO</i>	Operating cash flows, taken from the cash flow statement, deflated by lagged total assets;
<i>TACLAG</i>	One-year lagged total accruals. Accruals are defined as income before extraordinary items minus operating cash flows from the statement of cash flow deflated by lagged total assets;
<i>SCHANGE</i>	Percentage change in sales between the current year and the prior year.

<i>LOSS_TO_NOLOSS</i>	Indicator variable that equals one if the firm reports a loss for the prior year but not for the current year, and zero otherwise;
<i>NOLOSS_TO_LOSS</i>	Indicator variable that equals one if a firm reports a loss for the current year but not for the prior year, and zero otherwise;
<i>NOISSUE_TO_ISSUE</i>	Indicator variable that equals one if the sum of debt or equity issued during the past three years is more than five percent of the total assets for the current year but not for the prior year, and zero otherwise;
<i>ISSUE_TO_NOISSUE</i>	Indicator variable that equals one if the sum of debt or equity issued during the past three years is more than five percent of the total assets for the prior year but not for the current year, and zero otherwise;
<i>RESTATE</i>	Indicator variable that equals one if a firm subsequently had to restate the fiscal year's financial statements reports, and zero otherwise;
<i>RESTATE_AD</i>	Indicator variable that equals one if the restatement is income-decreasing one;
<i>VOLATILITY</i>	Standard deviation of the residual from the market model over the fiscal year;
<i>MERGER</i>	Indicator variable that equals one if a firm is engaged in a merger or acquisition, and zero otherwise;
<i>SEG</i>	Natural log of the number of business segments;
<i>FOREIGN</i>	Indicator variable that equals one if a firm operates foreign business, and zero otherwise;
<i>INVREC</i>	Sum of inventories and receivables divided by total assets;
<i>RETURN</i>	Compounded stock return over the fiscal year;

Part C. Audit fee model

Variable Name	Definition
<i>AUDFEE</i>	Natural log of audit fee in thousands of U.S. dollars;
<i>CATA</i>	Ratio of year-end current assets to total assets;
<i>CAACL</i>	Ratio of year-end current assets to current liabilities;
<i>FRN_TO_NOFRN</i>	Indicator variable that equals one if a firm operates foreign business for the prior year but not for the current year, and zero otherwise;
<i>NOFRN_TO_FRN</i>	Indicator variable that equals one if a firm operates foreign business for the current year but not for the prior year, and zero otherwise;
<i>CLEAN_TO_GCO</i>	Indicator variable that equals one if the firm receives a going concern opinion for the current year but not for the prior year, and zero otherwise;
<i>GCO_TO_CLEAN</i>	Indicator variable that equals one if a firm receives a going concern opinion for the prior year but not for the current year, and zero otherwise;

Table 1
Evidence of Opinion Shopping

Panel A: Audit opinion of switching and non-switching firms

	Switching Firms (N = 2,524)			Non-Switching Firms (N = 27,809)		
	$GCO_{t-1}=0$	$GCO_{t-1}=1$	Total	$GCO_{t-1}=0$	$GCO_{t-1}=1$	Total
$GCO_t=0$	1,753	99	1,852	24,022	415	24,437
$GCO_t=1$	217	455	672	1,147	2,225	3,372
Total	1,970	554	2,524	25,169	2,640	27,809

Panel B: Correlation table for variables used for audit reporting and auditor switching models

Variables	<i>ACH</i>	<i>GCO</i>	<i>GCO_lag1</i>	<i>TA</i>	<i>LEV</i>	<i>ROA</i>	<i>BANK</i>	<i>GROWTH</i>	<i>BTM</i>	<i>BIG4</i>
<i>GCO</i>	0.12***									
<i>GCO_lag1</i>	0.11***	0.71***								
<i>TA</i>	-0.17***	-0.56***	-0.50***							
<i>LEV</i>	0.05***	0.42***	0.40***	-0.37***						
<i>ROA</i>	-0.07***	-0.50***	-0.420***	0.50***	-0.67***					
<i>BANK</i>	0.02**	0.14***	0.06***	-0.03***	0.05***	-0.03***				
<i>GROWTH</i>	0.08***	0.09***	0.10***	-0.10***	-0.03***	0.01	-0.02***			
<i>BTM</i>	-0.04***	-0.37***	-0.34***	0.24***	-0.41***	0.28***	-0.14***	-0.01		
<i>BIG4</i>	-0.21***	-0.37***	-0.34***	0.67***	-0.19***	0.25***	-0.03***	-0.11***	0.11***	
<i>TENURE</i>	-0.31***	-0.10***	-0.06***	0.29***	-0.01	0.06***	-0.02***	-0.11***	0.02***	0.37***

Panel C: Probit models of audit reporting and auditor switching

Variables	Audit Opinion Model (Eq. (1)) Dependent Variable = <i>GCO</i>		Auditor Switch Model (Eq. (3)) Dependent Variable = <i>ACH</i>		
	(1)	(2)	(3)	(4)	(5)
Test Variables					
<i>P_OP</i>				-5.5567*** (-17.79)	
<i>OP</i>					-2.3894*** (-27.94)
Control Variables					
<i>ACH</i>	0.0383 (0.77)	-0.1851 (-0.55)			
<i>GCO_LAG1</i>	1.8105*** (38.74)	1.8664*** (34.69)	0.1399*** (3.81)		
<i>TA</i>	-0.2724*** (-19.15)	-0.2660*** (-17.15)	-0.0127* (-1.86)	-0.0350*** (-5.34)	0.0242*** (3.3)

<i>LEV</i>	0.0867 (1.35)	0.0896 (1.29)	0.0036 (0.32)	0.0290** (2.48)	0.0107 (0.84)
<i>ROA</i>	-0.1510*** (-4.91)	-0.1912*** (-4.31)	-0.0024 (-0.42)	0.0357*** (5.36)	0.3121*** (24.01)
<i>BANK</i>	1.7087*** (12.19)	1.7138*** (11.18)	0.2365** (2.09)	0.1462 (1.26)	-0.4308*** (-3.37)
<i>GROWTH</i>	0.0102 (0.96)	0.0089 (0.71)	0.0473*** (5.98)	0.0326*** (4.02)	0.0218*** (2.61)
<i>BTM</i>	-0.1215*** (-9.65)	-0.1232*** (-8.86)	0.0133 (1.57)	0.0287*** (3.28)	0.0768*** (8.19)
<i>BIG4</i>	0.0085 (0.2)	0.0318 (0.70)	-0.7378*** (-23.59)	-0.7851*** (-26.00)	-0.8476*** (-28.30)
<i>LTENURE</i>	-0.0724*** (-2.61)	-0.1125*** (-3.66)			
<i>GCO_LAG1*ACH</i>		-0.3423*** (-3.26)			
<i>TA*ACH</i>		0.0053 (0.18)			
<i>LEV*ACH</i>		-0.0006 (-0.01)			
<i>ROA*ACH</i>		0.1278** (2.32)			
<i>BANK*ACH</i>		-0.2134 (-0.63)			
<i>GROWTH*ACH</i>		-0.0037 (-0.16)			
<i>BTM*ACH</i>		0.0175 (0.53)			
<i>BIG4*ACH</i>		-0.1655 (-1.22)			
<i>LTENURE*ACH</i>		0.2704*** (4.60)			
Intercept	2.0906*** (8.75)	2.0844*** (8.51)	-1.3288*** (-11.30)	-0.8303*** (-7.12)	-1.1072*** (-9.00)
Year Effects	Yes	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes	Yes
Observations	30,333	30,333	30,333	30,333	30,333
Pseudo R-squared	0.6264	0.6292	0.1156	0.1399	0.2096

Table 1 reports evidence of opinion shopping based on Lennox (2000). Panel A reports the audit opinions between auditor switching and non-switching firms. GCO_t is an indicator variable that equals one if a firm receives a going-concern opinion in year t , and zero otherwise. Panel B reports the Pearson correlations between the regression variables used in the hypotheses tests to examine the evidence of opinion shopping. In Panel C, Eq. (1) is audit opinion model while Eq. (3) is auditor switch model.

$$\text{Eq. (1): } GCO_{jt} = \alpha + \beta_1 ACH_{jt} + \beta_2 GCO_{jt-1} + \beta_3 X_{jt} + \beta_4 GCO_{jt-1} * ACH_{jt} + \beta_5 X_{jt} * ACH_{jt} + \varepsilon_{jt},$$

$$\text{Eq. (3): } ACH_{jt} = \alpha + \beta_1 P_OP_{jt} + \beta_2 CONTROLS_{jt} + \varepsilon_{jt},$$

where Eq. (1) represents the reporting difference between new and incumbent audit firms. Using the results from Column (2), we predict the difference of probability to issue a going-concern audit opinion between new and incumbent audit firms (P_OP_{jt} and OP_{jt}). For the detailed definitions of variables, refer to Appendix A. When estimating the coefficients' standard errors, we use a clustering procedure that accounts for dependence between yearly observations relating to the same company (z-statistics are reported in parentheses). *, **, ***

indicate significance at the 10%, 5%, 1% levels, respectively.

Table 2
Frequency of auditor switches for opinion shopping

	Opinion Shopping Purpose Switching Firms ($OS_ACH = 1$)			Non-Opinion Shopping Purpose Switching Firms ($OS_ACH = 0$)		
	$GCO_{t,j}=0$	$GCO_{t,j}=1$	Total	$GCO_{t,j}=0$	$GCO_{t,j}=1$	Total
$GCO_t=0$	447	83	530	1,306	16	1,322
$GCO_t=1$	95	379	474	122	76	198
Total	542	462	1,004	1,428	92	1,520

Table 2 reports the audit opinions for auditor switching firms ($ACH = 1$). ACH_j is an indicator variable that equals one if firm j changes its auditor in year t , and zero otherwise. OS_ACH_{jt} is an indicator variable that equals one if firm j switches its auditor for the opinion shopping purpose in year t , and 0 otherwise. GCO_t is an indicator variable that equals one if a firm receives a going-concern opinion in year t , and zero otherwise. For the detailed definitions of variables, refer to Appendix A.

Table 3
Auditor Switching for Opinion Shopping and Audit Quality

Panel A: Descriptive statistics for audit quality model (N=29,346)

Variable	Mean	SD	Q1	Median	Q3
DA	0.15	0.25	0.02	0.06	0.16
ACH	0.08	0.27	0.00	0.00	0.00
OS_ACH	0.03	0.17	0.00	0.00	0.00
TA	12.06	2.49	10.46	12.20	13.80
LEV	0.32	0.92	0.00	0.14	0.32
LOSS	0.42	0.49	0.00	0.00	1.00
ISSUE	0.69	0.46	0.00	1.00	1.00
CFO	-0.09	0.78	-0.04	0.07	0.14
BTM	0.35	1.32	0.19	0.41	0.71
TACLAG	-0.18	0.81	-0.13	-0.06	-0.01
SCHANGE	0.17	0.57	-0.02	0.07	0.22
BIG4	0.61	0.49	0.00	1.00	1.00

Panel B: Level analysis for discretionary accruals

VARIABLES	Full Sample				Auditor Switching Sample
	DA	DA+	DA-	DA	
	(1)	(2)	(3)	(4)	(5)
Test Variables					
ACH	0.0171*** (2.73)	-0.0011 (-0.16)	0.0109 (1.05)	-0.0148 (-1.51)	
OS_ACH		0.0486*** (3.52)	0.0308* (1.66)	0.0757*** (3.65)	0.0542*** (3.28)
Control Variables					
TA	-0.0260*** (-19.24)	-0.0258*** (-19.03)	-0.0368*** (-17.22)	-0.0154*** (-10.58)	-0.0540*** (-10.39)
LEV	0.0194*** (4.37)	0.0193 (4.35)	0.0212*** (3.83)	0.0215*** (3.11)	0.0234* (1.86)
LOSS	0.0088** (2.47)	0.0085 (2.37)	-0.0333*** (-6.21)	0.0483*** (10.94)	-0.0177 (-1.38)
ISSUE	0.0044 (1.27)	0.0041 (1.19)	0.0143*** (2.82)	-0.0073 (-1.63)	-0.0160 (-1.14)
CFO	-0.0590*** (-10.58)	-0.0585 (-10.48)	-0.0608*** (-7.64)	-0.0683*** (-8.35)	-0.0194 (-1.38)
BTM	-0.0088*** (-5.21)	-0.0085 (-4.99)	-0.0097*** (-4.13)	-0.0108*** (-4.52)	-0.0058 (-1.37)
TACLAG	-0.0200*** (-4.79)	-0.0197 (-4.72)	-0.0075 (-1.41)	-0.0392*** (-5.48)	-0.0145 (-1.52)
SCHANGE	0.0639***	0.0641	0.0698***	0.0607***	0.0561***

	(12.67)	(12.71)	(9.97)	(8.17)	(4.42)
<i>BIG4</i>	-0.0059	-0.0083**	0.0007	-0.0154***	0.0182
	(-1.43)	(-1.96)	(0.11)	(-2.79)	(0.94)
Intercept	0.3271***	0.3280***	0.5106***	0.3440***	0.7275***
	(11.34)	(11.42)	(14.77)	(9.61)	(9.67)
Year Effects	Yes	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes	Yes
F-Test for <i>ACH</i> + <i>OS_ACH</i>		8.14	4.29	6.71	
p-value		0.0003	0.0137	0.0012	
Observations	29,346	29,346	13,962	13,651	2,324
Adjusted R ²	0.2627	0.2634	0.3048	0.2856	0.2834

Panel C: Change analysis for discretionary accruals

VARIABLES	Full Sample		Auditor Switching Sample
	(1)	(2)	(3)
Test Variables			
<i>ACH</i>	0.0161**	0.0052	
	(2.19)	(0.64)	
<i>OS_ACH</i>		0.0298*	0.0391**
		(1.87)	(2.10)
Control Variables			
ΔTA	0.0315***	0.0314***	0.0318***
	(7.52)	(7.51)	(2.92)
ΔLEV	0.0521***	0.0514***	0.0798***
	(6.01)	(5.96)	(3.62)
<i>LOSS_TO_NOLOSS</i>	0.0074	0.0075	0.0102
	(1.40)	(1.42)	(0.47)
<i>NOLOSS_TO_LOSS</i>	0.0448***	0.0449***	0.0522**
	(8.11)	(8.13)	(2.47)
<i>NOISSUE_TO_ISSUE</i>	-0.0358***	-0.0358***	-0.0685***
	(-6.27)	(-6.26)	(-3.04)
<i>ISSUE_TO_NOISSUE</i>	-0.0045	-0.0043	-0.0578
	(-0.81)	(-0.77)	(-1.38)
ΔCFO	-0.0484***	-0.0483***	-0.0220
	(-5.38)	(-5.37)	(-1.23)
ΔBTM	0.0010	0.0012	0.0090
	(0.41)	(0.50)	(1.33)
$\Delta TACLAG$	0.0193***	0.0193***	0.0058
	(2.89)	(2.90)	(0.37)
$\Delta SCHARGE$	0.0603***	0.0605***	0.0471***
	(11.84)	(11.86)	(3.37)
<i>BIG4</i>	-0.0045**	-0.0054**	-0.0468***
	(-2.11)	(-2.42)	(-3.06)
Intercept	-0.0248**	-0.0231**	0.0817
	(-2.28)	(-2.14)	(1.41)
Year Effects	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes
F-Test for <i>ACH</i> + <i>OS_ACH</i>		3.31	
p-value		0.0365	

Observations	28,604	28,604	2,206
Adjusted R ²	0.0930	0.0932	0.1096

Panel D: Additional analysis using restatement as a proxy for audit quality

VARIABLES	Full Sample		Auditor Switching Sample	
	<i>Restate</i>	<i>Restate_AD</i>	<i>Restate</i>	<i>Restate_AD</i>
	(1)	(2)	(3)	(4)
Test Variables				
<i>ACH</i>	-0.1318** (-2.51)	-0.0926* (-1.71)		
<i>OS_ACH</i>	0.2300*** (2.96)	0.2039** (2.53)	0.2450** (2.46)	0.2511** (2.43)
Control Variables				
<i>TA</i>	0.0301*** (2.85)	0.0265** (2.37)	-0.0220 (-0.81)	-0.0296 (-1.06)
<i>VOLATILITY</i>	0.4660* (1.75)	0.3923 (1.41)	-1.0036 (-1.35)	-1.2633* (-1.66)
<i>BTM</i>	0.0063 (0.40)	0.0018 (0.11)	-0.0164 (-0.56)	0.0037 (0.11)
<i>LEV</i>	0.0212 (1.25)	0.0154 (0.87)	0.0308 (0.83)	0.0299 (0.76)
<i>ROA</i>	-0.0075 (-0.75)	-0.0108 (-1.06)	0.0171 (0.84)	0.0179 (0.81)
<i>LOSS</i>	0.1035*** (3.35)	0.0966*** (2.98)	-0.0434 (-0.48)	-0.0601 (-0.66)
<i>BIG4</i>	-0.0902** (-2.16)	-0.0886** (-2.03)	-0.1264 (-1.06)	-0.1402 (-1.14)
<i>MERGER</i>	0.0638 (1.32)	0.0428 (0.84)	-0.0430 (-0.17)	0.0546 (0.22)
<i>ISSUE</i>	0.0149 (0.50)	0.0194 (0.62)	-0.0264 (-0.32)	0.0018 (0.02)
<i>SEG</i>	0.0625 (1.55)	0.0509 (1.22)	0.2087** (2.00)	0.2070* (1.94)
<i>FOREIGN</i>	0.0263 (0.72)	0.0578 (1.51)	-0.0319 (-0.32)	0.0313 (0.31)
<i>INVREC</i>	0.0458 (0.51)	0.1370 (1.45)	-0.1178 (-0.59)	-0.0658 (-0.33)
<i>RETURN</i>	-0.0150 (-0.79)	-0.0017 (-0.09)	-0.0469 (-0.63)	-0.0146 (-0.20)
Intercept	-2.2861*** (-12.43)	-2.2891*** (-12.00)	-1.5206*** (-3.64)	-1.5146*** (-3.44)
Year Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Chi ² Test for <i>ACH</i> + <i>OS_ACH</i>	9.34	6.40		
p-value	0.0094	0.0407		
Observations	27,075	27,075	1,965	1,965
Pseudo R ²	0.0240	0.0263	0.0368	0.0394

Table 3 is about the effect of auditor switch for opinion shopping on audit quality. Panel A reports descriptive statistics for the variables used in the hypotheses tests. Panel B covers its effect on the level of accrual quality measured by the absolute value of discretionary accruals (Eq. (4)) while Panel C covers its effect on the change in discretionary accruals (Eq. (5)). As alternative measure of audit quality, in Panel D, we use whether a firm subsequently had to restate the fiscal year's financial statements reports:

$$\text{Panel B: } |DA_{jt}| = \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 CONTROLS_{jt} + \varepsilon_{jt},$$

$$\text{Panel C: } \Delta|DA_{jt}| = \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 CONTROLS_{jt} + \varepsilon_{jt},$$

$$\text{Panel D: } Restate = \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 CONTROLS_{jt} + \varepsilon_{jt},$$

$$Restate_ad = \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 CONTROLS_{jt} + \varepsilon_{jt},$$

where $|DA_{jt}|$ is the absolute value of performance-matched abnormal accruals as measured by Kothari et al.'s (2005) method. $\Delta|DA_{jt}|$ is the change in the absolute value of performance-matched abnormal accruals between the current year and the prior year. ACH_{jt} is an indicator variable that equals one if firm j changes its auditor in year t , and zero otherwise. OS_ACH_{jt} is an indicator variable that equals one if the probability of firm j to receive a going concern opinion is lower under switching decision than under non-switching decision and the firm j changes its auditor in year t , and zero otherwise. For the detailed definitions of other control variables, refer to Appendix A. In Panel C, Δ represents the value of a change from prior year to current year. ΔTA are deflated by the prior total assets. When estimating the coefficients' standard errors, we use a clustering procedure that accounts for dependence between yearly observations relating to the same company (t-statistics (or z-statistics) are reported in parentheses). *, **, *** indicate significance at the 10%, 5%, 1% levels, respectively.

Table 4
Auditor switching for opinion shopping and audit fee

Panel A: Descriptive statistics for audit fee model (N=30,333)

Variable	Mean	SD	Q1	Median	Q3
<i>AUDFEE</i>	6.25	1.49	5.19	6.37	7.29
<i>ACH</i>	0.08	0.28	0.00	0.00	0.00
<i>OS_ACH</i>	0.03	0.18	0.00	0.00	0.00
<i>TA</i>	11.90	2.63	10.29	12.09	13.74
<i>INVREC</i>	0.26	0.20	0.09	0.23	0.38
<i>FOREIGN</i>	0.42	0.49	0.00	0.00	1.00
<i>SEG</i>	0.98	0.43	0.69	0.69	1.39
<i>CATA</i>	0.55	0.26	0.35	0.55	0.76
<i>CACL</i>	3.02	3.46	1.24	2.02	3.42
<i>LEV</i>	0.39	1.16	0.00	0.14	0.33
<i>ROA</i>	-0.50	2.25	-0.17	0.02	0.07
<i>LOSS</i>	0.43	0.50	0.00	0.00	1.00
<i>GCO</i>	0.13	0.34	0.00	0.00	0.00
<i>BTM</i>	0.31	1.40	0.17	0.39	0.70
<i>ISSUE</i>	0.69	0.46	0.00	1.00	1.00
<i>BIG4</i>	0.59	0.49	0.00	1.00	1.00

Panel B: Level analysis for audit fees

VARIABLES	Full Sample		Auditor Switching Sample
	(1)	(2)	(3)
Test Variables			
<i>ACH</i>	0.0108 (0.82)	-0.0117 (-0.70)	
<i>OS_ACH</i>		0.0559** (2.11)	0.1230*** (3.56)
Control Variables			
<i>TA</i>	0.4900*** (102.86)	0.4901*** (102.85)	0.4940*** (49.17)
<i>INVEREC</i>	-0.0391 (-1.04)	-0.0390 (-1.03)	-0.0409 (-0.53)
<i>FOREIGN</i>	0.3210*** (21.16)	0.3210*** (21.16)	0.3751*** (11.30)
<i>SEG</i>	0.1354*** (8.62)	0.1355*** (8.62)	0.0782** (2.06)
<i>CATA</i>	0.5570*** (17.47)	0.5567*** (17.46)	0.5798*** (8.26)
<i>CACL</i>	-0.0361*** (-17.69)	-0.0360*** (-17.66)	-0.0366*** (-8.26)
<i>LEV</i>	0.0239*** (4.05)	0.0240*** (4.08)	0.0314*** (2.62)

<i>ROA</i>	-0.0470*** (-15.16)	-0.0466*** (-15.05)	-0.0375*** (-5.49)
<i>LOSS</i>	0.1841*** (16.56)	0.1839*** (16.54)	0.1931*** (6.18)
<i>GCO</i>	0.1102*** (5.49)	0.1076*** (5.37)	-0.0054 (-0.12)
<i>BTM</i>	-0.0160*** (-4.05)	-0.0157*** (-3.99)	-0.0178* (-1.83)
<i>ISSUE</i>	0.0756*** (7.11)	0.0752*** (7.09)	0.1274*** (4.52)
<i>BIG4</i>	0.4114*** (23.08)	0.4086*** (22.90)	0.3413*** (8.16)
Intercept	-0.7920*** (-4.38)	-0.7887*** (-4.37)	-0.7206*** (-3.24)
Year Effects	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes
F-Test for <i>ACH</i> + <i>OS_ACH</i>		2.54	
p-value		0.0788	
Observations	30,333	30,333	2,524
Adjusted R ²	0.8725	0.8725	0.8174

Panel C: Change analysis for audit fees

VARIABLES	Full Sample		Auditor Switching Sample
	(1)	(2)	(3)
Test Variables			
<i>ACH</i>	0.0031 (0.13)	-0.0367 (-1.39)	
<i>OS_ACH</i>		0.0988** (2.14)	0.0820* (1.67)
Control Variables			
<i>ΔTA</i>	0.1786*** (19.43)	0.1781*** (19.36)	0.1583*** (7.50)
<i>ΔINVREC</i>	0.3839*** (4.96)	0.3843*** (4.96)	0.9481*** (3.69)
<i>FRN_TO_NOFRN</i>	-0.0977*** (-3.11)	-0.0984*** (-3.14)	-0.1314 (-1.15)
<i>NOFRN_TO_FRN</i>	0.1778*** (5.15)	0.1780*** (5.16)	0.3741*** (2.76)
<i>ΔSEG</i>	0.0428*** (3.64)	0.0431*** (3.66)	0.1178** (2.01)
<i>ΔCATA</i>	0.2922*** (5.84)	0.2915*** (5.83)	0.1536 (0.98)
<i>ΔACCL</i>	-0.0002 (-0.08)	-0.0001 (-0.03)	0.0078 (0.84)
<i>ΔLEV</i>	0.0167 (1.54)	0.0154 (1.42)	-0.0331 (-0.80)
<i>ΔROA</i>	-0.0276*** (-5.78)	-0.0271*** (-5.69)	-0.0518*** (-3.06)
<i>NOLOSS_TO_LOSS</i>	0.1145***	0.1150***	0.1360*

	(6.43)	(6.47)	(1.69)
<i>LOSS_TO_NOLOSS</i>	-0.0864*** (-7.33)	-0.0858*** (-7.28)	-0.1026* (-1.66)
<i>CLEAN_TO_GCO</i>	-0.0314 (-1.06)	-0.0312 (-1.05)	-0.0345 (-0.34)
<i>GCO_TO_CLEAN</i>	-0.1381*** (-3.73)	-0.1473*** (-3.95)	-0.2856** (-2.56)
ΔBTM	0.0147*** (3.67)	0.0153*** (3.84)	0.0271* (1.71)
<i>NOISSUE_TO_ISSUE</i>	-0.0080 (-0.57)	-0.0084 (-0.60)	-0.0226 (-0.41)
<i>ISSUE_TO_NOISSUE</i>	0.0020 (0.14)	0.0028 (0.19)	-0.0444 (-0.31)
<i>Big4</i>	0.1099*** (14.44)	0.1071*** (14.25)	0.2572*** (4.77)
Intercept	-0.4331*** (-5.24)	-0.4267*** (-5.20)	-0.5196*** (-3.57)
Year Effects	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes
F-Test for <i>ACH</i> + <i>OS_ACH</i>		2.32	
p-value		0.0979	
Observations	29,929	29,929	2,472
Adjusted R ²	0.1953	0.1955	0.1317

Table 4 is about the effect of auditor switch for opinion shopping on audit fee. Panel A reports descriptive statistics for the variables used in the hypotheses tests. Panel B and Panel C represent its effect in the following audit fee models. Panel B covers the effect on the level of audit fees (Eq. (6)), while Panel C covers the effect on the change in audit fees (Eq. (7)):

$$\text{Panel A: } AUDFEE_{jt} = \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 CONTROLS_{jt} + \varepsilon_{jt},$$

$$\text{Panel B: } \Delta AUDFEE_{jt} = \alpha + \beta_1 ACH_{jt} + \beta_2 OS_ACH_{jt} + \beta_3 CONTROLS_{jt} + \varepsilon_{jt},$$

where *AUDFEE* is the logarithmic transformation of annual audit fees in thousands of U.S. dollars paid by firm *j* to the external auditor in year *t*. $\Delta AUDFEE_{jt}$ is the percentage change in audit fee between the current year and the prior year. *ACH_{jt}* is an indicator variable that equals one if firm *j* changes its auditor in year *t*, and zero otherwise. *OS_ACH_{jt}* is an indicator variable that equals one if the probability of firm *j* to receive a going concern opinion is lower under switching decision than under non-switching decision and the firm *j* changes its auditor in year *t*, and zero otherwise. For the detailed definitions of other control variables, refer to Appendix A. In Panel C, Δ represents the value of a change from prior year to current year. ΔTA and ΔSEG are divided by the prior total assets and the number of prior business segments, respectively. In Panel B and Panel C, Column (1) only includes both *ACH* and firm-level control variables. Column (2), our baseline specification, extends the set of firm-level explanatory variables to include *OS_ACH*. Column (3) only includes the auditor switching subsample. When estimating the coefficients' standard errors, we use a clustering procedure that accounts for dependence between yearly observations relating to the same company (t-statistics are reported in parentheses). *, **, *** indicate significance at the 10%, 5%, 1% levels, respectively.

Table 5
Sensitivity analysis

Panel A: Additional test for the sample excluding auditor resignation

Variables	Dependent Variable = $ DA $		Dependent Variable = $AUDFEE$	
	Full sample	Auditor Switching Sample	Full sample	Auditor Switching Sample
	(1)	(2)	(3)	(4)
Test Variables				
<i>ACH</i>	0.0305 (1.44)		-0.0689*** (-2.83)	
<i>OS_ACH</i>	0.0975*** (2.96)	0.2259*** (4.25)	0.1141*** (3.72)	0.1320*** (3.89)
Chi ² -Test (or F-Test) for <i>ACH</i> + <i>OS_ACH</i>	13.64		6.92	
p-value	0.0000		0.0010	
Observations	29,332	1,760	29,599	1,790
Adjusted R ²	0.4275	0.4246	0.8730	0.8281

Panel B: Additional test for financially distressed sample

Variables	Dependent Variable = $ DA $		Dependent Variable = $AUDFEE$	
	Loss Sample	Lowest 25% of equity	Loss Sample	Lowest 25% of equity
	(1)	(2)	(3)	(4)
Test Variables				
<i>ACH</i>	-0.0094 (-0.81)	0.0251 (1.53)	-0.0294 (-1.16)	-0.0382 (-1.28)
<i>OS_ACH</i>	0.0720*** (3.68)	0.0472* (1.83)	0.0767** (2.22)	0.1073*** (2.63)
F-Test for <i>ACH</i> + <i>OS_ACH</i>	7.49	6.39	2.63	3.82
p-value	0.0006	0.0017	0.0723	0.0220
Observations	12,251	7,339	13,124	7,585
Adjusted R ²	0.2532	0.2192	0.8521	0.8020

Panel C: Additional test for propensity score matching

Variables	Dependent Variable = $ DA $		Dependent Variable = $AUDFEE$	
	Full sample	Auditor Switching Sample	Full sample	Auditor Switching Sample
	(1)	(2)	(3)	(4)
Test Variables				
<i>ACH</i>	-0.0438 (-0.99)		-0.0661 (-0.72)	
<i>OS_ACH</i>	0.0851* (1.89)	0.1050** (2.28)	0.1123 (1.23)	0.1585* (1.67)

F-Test for $ACH + OS_ACH$	4.43	5.20	2.03	2.78
p-value	0.0120	0.0228	0.1315	0.0958
Observations	1,752	914	2,002	1,058
Adjusted R ²	0.2930	0.2860	0.8556	0.8430

Table 5 reports the results of various sensitivity analyses using Eq. (4) (for Columns (1) and (2) of each panel) and Eq. (6) (for Columns (3) and (4) of each panel). For simplicity, we tabulate the coefficients on test variables only. Panel A reports the regression result for the observations excluding auditor resignation cases, while Panel B is about the financially distressed subsample. In Panel B, Column (1) and (3) consists of firms with negative net income. Column (2) and (4) is for the firms with the lowest 25 percent of equity of the total sample. In Panel C, we repeat the analysis using the propensity score matching technique. When estimating the coefficients' standard errors, we use a clustering procedure that accounts for dependence between yearly observations relating to the same company (t-statistics (or z-statistics) are reported in parentheses). *, **, *** indicate significance at the 10%, 5%, 1% levels, respectively.